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CAR SHOW



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10 page photo story

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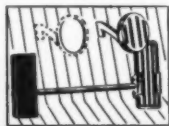
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'35-52; Ply. Chrys., DeSoto '35-54

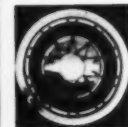
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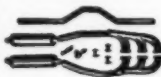


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Vol. 2, No. 8

December, 1954

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C O N T E N T S

FEATURES

In the November issue we promised our readers an all expense paid tour of the National Speed Trials at **BONNEVILLE** 10



Competition cars frequently have their engine up in front, but what about the **REAR ENGINE: IS IT THE ANSWER?** 24



Car clubs are always trying to find new things to do, but too many members don't know that **YOUR CLUB CAN PUT ON A CAR SHOW** . . . 28



If you have wanted to fill the hood on your car and it's a late model you will probably enjoy **SMOOTHING A TWO PIECE HOOD** . . . 38



HOW-TO-DO-ITS

Pistons For Punch 33
 Two ways to power in one operation.

RODS AND CUSTOMS

Toy Shop Custom 20
 Restyled and ready.

Roadster by Randall 50
 An Oklahoma Custom.

CLUB DATA

When The Lights Go On Again 42
 ... and 6 outstanding customs.

Neither Too Young Nor Too Old . . . 48
 A club's Rod and a Custom.

Speed Chart 37
 Converting secs. to mph.

REGULAR DEPARTMENTS

Editorial 6
Correspondence 8
Reader's Car Of The Month 46
Custom Tips 56
Tech Tips 58
Reader's Customs 60
Whatsit? 66

ROD and CUSTOM is published monthly by Quinn Publications, Inc., 4949 Hollywood Blvd., Hollywood 27, Calif. Entered as second-class matter at the post office at Los Angeles, California, under the Act of March 3, 1897. Reprinting in whole or part forbidden except by permission of the publishers. Copyright 1954 by Quinn Publications, Inc.

SUBSCRIPTION PRICE \$3.00 per year throughout the world. Single copy 25 cents.

ADVERTISING: Advertising Manager - Marvin Patchen, 4949 Hollywood Blvd., Hollywood 27, Calif. **MIDWEST** - Prendergast & Minahan, 168 North Michigan Avenue, Chicago 1, Illinois.

ABOUT THE COVER

ROD & CUSTOM'S Bonneville cover symbolizes the spirit of speed trials by depicting a lakester straddling one of the two black lines indicating the limits of the course's width. The artist responsible did a fine job, in our opinion, and we sincerely hope our readers will concur. Incidentally, if the fantastic sunset on this month's cover strikes you as being rather improbable, you've never been there!

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ROD AND CUSTOM, DECEMBER, 1954

GRANT SWEEPS *the* FIELD

AT THE 6th ANNUAL
Bonneville
NATIONAL SPEED TRIALS

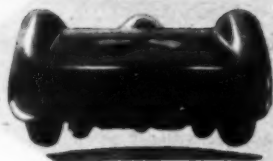
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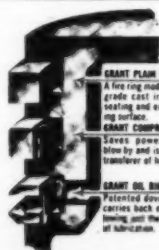
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editorial

SO MUCH has been written during the last few months regarding speeds turned up at the many drag strips throughout the country that it is about time that we sat back and took a look at what is happening. Many times a car, having turned up the fastest class time of the day, will be beaten during elimination runs when it goes off with the second fastest car in the same class. "How come a coupe capable of 115 mph in the standing quarter can be beaten by another coupe with a top time of only 112?" That question is asked around here more often than any other — with the speeds mentioned, of course, being the only variable. The reason is simple. The *slower* car got away from the starting line faster while the competitor sat at the line throwing great chunks of rubber rearward. It's as simple as that! The *slower* car had the least elapsed time while the *faster* car actually turned in a slower time.

The case of the oft-mentioned Y-M Dragster is the prime example. Don Yates, during his fastest run of 144 mph, buzzed through the quarter mile in 8.9 seconds. Since that time a few cars have succeeded in bettering the 144 mile mark but none have surpassed the 8.9 secs. time. In short, if the Y-M Dragster still existed, it would beat all comers providing it could duplicate its best elapsed time.

What we're driving at is this: The speeds attained at the end of the quarter mile should be forgotten, or they should be registered merely incidentally. *Elapsed* time is all-important! *Average* speed can be calculated as easily as speeds registered while passing the end of the drag course. If a car were to negotiate a strip in, say, 10 seconds flat, his *average* speed through the quarter mile would be 90 mph. That may not *sound* fast but it's only because we've

become accustomed to hearing top end speeds, now seldom less than 100 mph for a really hot machine.

The so-called hot rod organizations and the various drag strip promoters are responsible for the unorthodox method of speed timing currently in effect. They have established what they consider to be the best (not what actually is the best) way of comparing relative speeds of various cars timed at different intervals. As a result, speeds at one strip cannot be fairly compared to speeds at another since no two strips are run alike.

It would be a simple matter to convert all existing strips so that elapsed times could be calculated. Instead of positioning the electric eyes at a 132 foot interval *somewhere* near the end of the course, the eyes could be placed at *each end* of the 1320 foot quarter mile. The first beam would be broken as soon as the front wheels of a car began to roll from the starting line. The second beam would be similarly broken as the car passed the end of the strip. The time interval between the breaking of the light beams would be the elapsed time of the car. *No rolling starts* would be allowed — which is a point that is taken far too lightly due to present mismanagement.

In case you're interested, ROD & CUSTOM is devoting an entire page in this issue to a table showing average speeds attained as computed through elapsed times. The speeds covered, in the chart on page 37, range from 9.00 secs (100.00 miles per hour) to 13.99 secs (64.31 miles per hour). It is only a matter of simple mathematics to extend this chart in either direction to cover either faster or slower cars, limited space makes it impossible for us to do so, rather we have listed those speeds which are most apt to be reached. ●

ROD AND CUSTOM, DECEMBER, 1954

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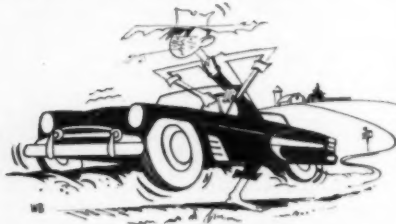
State _____

Correspondence

HIGH-CROWNED-ROADS

I like your magazine. I also like hot rods, whether roadster, coupe, pick-up, late model, etc. I also like customized cars that have had their appearance improved, *but* I don't like the customs that use tons of lead, drag the ground, and in general look like something that was left over from a 3-D movie!

I live in a farming community located in the corn belt. I am a sophomore in a consolidated high school. Many of my friends, who are also car fans, live in the country. I can imagine us going down one of our gravel roads in a California lead-sled! It would be back to the junk-yard, boys!



I do like some of the customs I see in your magazine, however. The '50 Mercury on page 24 of your April issue for instance.

Yours truly,

Nick Case

Rossville, Ill.

• Well, Nick, we're glad to see, that in spite of the fact that road conditions in your area make custom cars impractical, that you and your friends still appreciate the ones you see in R & C.

8

ROGER HUNTINGTON ON Y-M

I notice in your September issue that Jerry Crabtree rings my name into the discussion with Navarro about the 144 mph and 8.9 seconds for the standing $\frac{1}{4}$ racked up by the Yates-Mikkelsen Dragster. So I thought maybe I'd better get my two cents worth in!

In regard to the controversy about the times set up by the Y-M Dragster, the figure that hits me is, not the 144 mph at the end of the course, but the elapsed time of 8.9 seconds for the standing $\frac{1}{4}$ mile. My first reaction was to doubt the accuracy of the timing... or to doubt that it was a *dead* standing start. However, I wasn't there, so I can only assume that the timing was okay and that it was, indeed, a *dead* standing start. From this point, it's a matter of simple mathematics to prove that the rate of acceleration of the car would have had to be well over 1 G for at least part of the distance. This means that the tire thrust would have to be more than the total gross weight of the machine. A tire-pavement traction coefficient of over 1.0 is entirely possible — and has been proved in brake tests. But on a rear-drive car you've also got to get practically all the gross weight effectively on the driving wheels. This is possible, too. In addition to the static weight distribution, you have the effect of torque reaction on the ring gear and the weight transfer effect of having the center of gravity above ground level (an inertia effect proportional to acceleration rate). Assuming 3.78:1 rear and 25-tooth Lincoln box in 2nd gear,

ROD AND CUSTOM, DECEMBER, 1954

400 bhp, 1200 lbs. gross weight, and 120" wheelbase, the former effect would transfer roughly 210 lbs. front to rear wheels, while inertia at 1 G acceleration (with 17" CG height) would transfer about 170 lbs. It would thus be no trick at all to get 95% or more of the gross weight effectively on the rear wheels off the line. (Also, remember the effect tends to level itself out as the car gains speed, giving more front end weight and better steering control—that is, the weight transfer decreases as torque and acceleration rate drop.) So, just as Barney Navarro says, the traction coefficient definitely was well over 1.0. Certainly the coefficient obtained here is far in excess of *anything ever achieved* with a rubber tire on pavement. As Barney suggests, it must be more than friction; something akin to *gearing* between pavement and the soft, flabby tire tread. (The British call this effect "keying.") That's about the only explanation I can give. Before it actually happened, I'd have said IMPOSSIBLE. But you can't argue with the clocks! Roger Huntington, S.A.E.

Lansing, Mich.

• *Thanks, Roger! We don't usually have such distinguished company when we're out on a limb!*

REPLY TO POWELL

In reference to Tom Powell's letter in the September issue of R & C, maybe he thinks some of us Easterners don't laugh out loud at some of the California "Lead Sleds". He must want to put the blame for the gook jobs on *immigrants from out of the state*. Does he think all ideas for custom cars come out of California? If he does please refer him to "La Rocket" and the two Chevrolet Bel Aires in your September issue.

Gary Robbins

Cleveland, Tenn.

• *Looks as though Tom Powell's letter has stirred up some interest!*

(Continued to page 64)

ROD AND CUSTOM, DECEMBER, 1954

CUSTOM HOW IS 100% BRAND NEW

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As promised in last month's issue, **ROD & CUSTOM** takes you on an all-expense paid tour of...

BONNEVILLE



Photos by
Moon, Spence

QUITE A few months ago home garages and workshops throughout the country began to buzz with activity. Barrels of midnight oil and many sleepless nights were spent as speed enthusiasts slaved away, all the while with one wary eye on the calendar. *Monday, August 30th.* To engine builders in particular and speed fanatics in general that date approached with alarming swiftness. Bonneville! The 6th Annual Bonneville National Speed Trials were to begin on that day and continue for a full week. Oddly enough, the location

Wendover, Utah, with a normal population of 750, grows to about 4,000 during the week of the annual Bonneville National Speed Trials.



"THIS IS
THE PLACE"

ALL TRUCKS
PARK



Before a single run can be made, the course must be laid out and the timing lights set up.



At last, the cars are being readied. Here, speed merchant Bill Koss fastens canopy on streamliner.

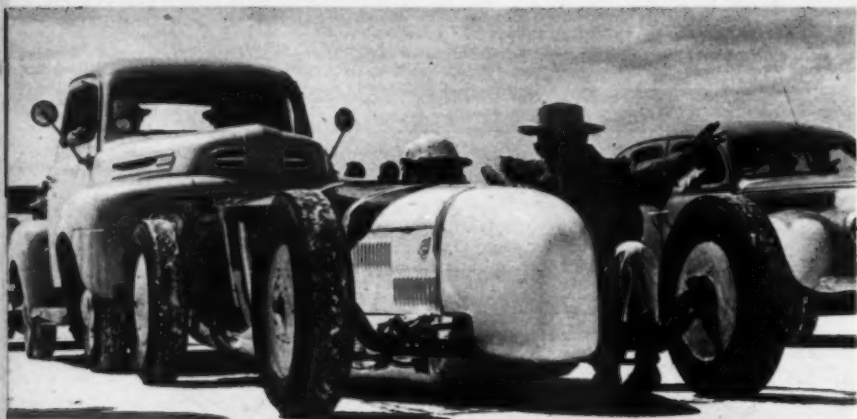
was in the midst of one of the most barren locations of the United States—the western side of Utah, a scant 6 miles from the small town of Wendover.

To enthusiasts who had journeyed hundreds—indeed, thousands of miles from all over the U. S. and Canada, the great expanse of gleaming white salt appeared to be practically begging them to open up their machines, to roar flat-out across the almost unlimited, absolutely smooth course. A record number of cars and spectators were on hand during the week to witness, and par-

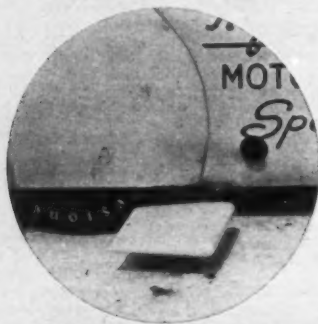


Chief Timer Otto Grueber drives salt marking end of long course.





Chief Starter Bob Higbee describes course to the driver of a rear-engined roadster.



Bill Kenz experimented with movable flaps on his streamliner, later abandoned idea.

Odd-appearing '36 Ford 3-window coupe was entered in Closed Sports Car class but car did not turn speed expected. Note street-used headlights, fenders and the unusual shell.



ticipate in, the 6th consecutive meet. However, let's back up a little and see what takes place on the salt *before* the country's hottest hot rods can be pushed down the course that stretches out of sight over the horizon.

While the opening date of Bonneville was still nothing more than a calendar date and record holding cars lay disassembled in shops all around the country, negotiations with Bonneville Limited were begun by the SCTA - the Southern California Timing Association. The governing body behind the meet without whose help the trials



Doug Rice's radically customized '39 Ford coupe (See R & C, Dec. '53) returned to Bonneville this year boasting new paint job, but failed to beat last years speed.

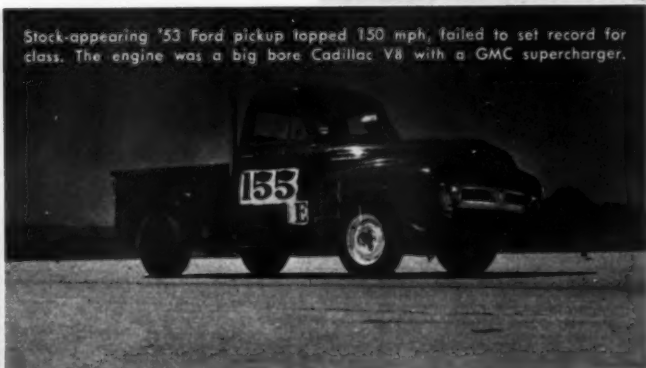
would still be but a rodder's dream. The salt is under water during the greater part of the year and most of the remaining weeks find it too soft and slushy for even a lone bird to land upon. A scant 6 weeks, from early in August to the latter part of September, represents the only time during which anything as heavy as an automobile dares to venture out upon the salt-topped mud — mud that extends one thousand feet down to bedrock.

Tentative plans were eventually set and the salt-governing officials gave the go-ahead for the dates requested by the



The nitro- and alky-dispensing truck met with great popularity for obvious reasons.

Stock-appearing '53 Ford pickup topped 150 mph, failed to set record for class. The engine was a big bore Cadillac V8 with a GMC supercharger.



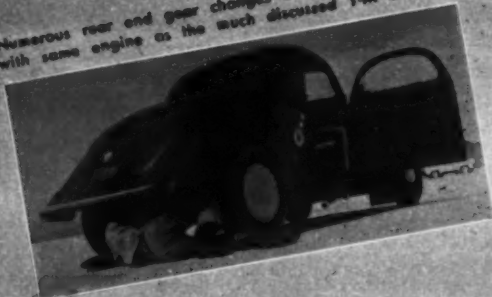


Fulton-Harsh dragster later killed at 212 mph injuring driver Otto Rysman.



Twin-engine Class E hotrod needed some rework before setting a new class record.

Numerous rear end gear changes were made to coupe with same engine as the much discussed Y-M dragster.



SCTA. State surveyors were called in to carefully measure a course and to mark each mile of length along the available distance. Later, an oil-dispensing truck arrived to lay parallel lines, eighty feet apart, along the ten miles set down by the advance engineers. Another truck was there, too, pulling a scraper to rid the course of the small salt ridges that run crazily across the surface of the dried lake bed.

Next came SCTA's turn. It is their job to set up the course markers, lights, phone lines and timing stands. This work continued right up until B-day



Some cars carried name of sponsors, others bore signs, as above.



The Salt Flats took its toll of machinery as evidenced by this nighttime scene above.



Not all of the enthusiasts went home happy. Many expensive engines, like this Dodge V8...

minus 1.

Late Sunday afternoon the course was ready for business and cars from everywhere began arriving in nearby Wendover. Within a matter of hours the few available motels were filled to overflowing and late-comers began searching for a place to throw a bed-roll or pitch a tent.

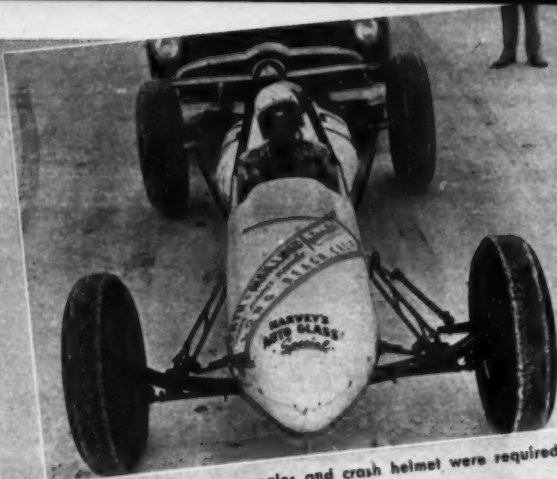
Early on Monday the road to the salt was jammed with cars, trucks and trailers. The inspection and registration line grew and as cars were carefully checked over then OK'd, the pit area commenced to form itself. Shortly after sunup, cars



... "blew up" on the course scattering their innards all over the salt flats.

One of Sparks & Bonney's team cars (R & C. Nov. '54) added high top to change class.





Safety belt, roll bar, goggles and crash helmet were required by rules.



Arrow indicates driveshaft, of twin tank streamliner, in left hand tank.



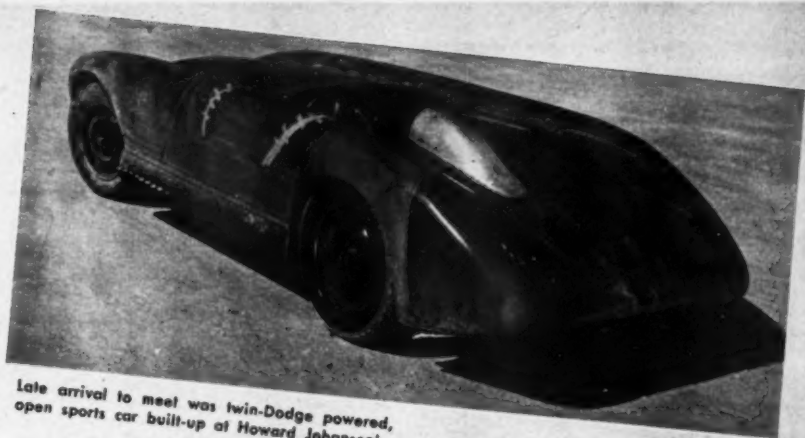
Mechanical failures were numerous. Axle, above, couldn't stand strain of speed.

began forming the starting line at the head of the course.

A last minute check was given the electric eye system and the loudspeakers boomed, "1, 2, 3 . . . Testing!" The Kenz-Leslie Streamliner took off on its traditional first-run-of-the-meet trip. Owner Kenz piloted the beautiful baby blue, twin-Mercury car in the absence of his former driver, Willie Young. Chief Timer J. Otto Crocker announced his time at 184 mph – then Kenz returned to the starting line to run again on *both* of his powerplants. His initial run had been on the forward engine only in



Pit crew of 150 mph coupe worked all night to repair gear box scattered on day's run.



Late arrival to meet was twin-Dodge powered, open sports car built-up at Howard Johansen's.

order to feel out the new front wheel drive train.

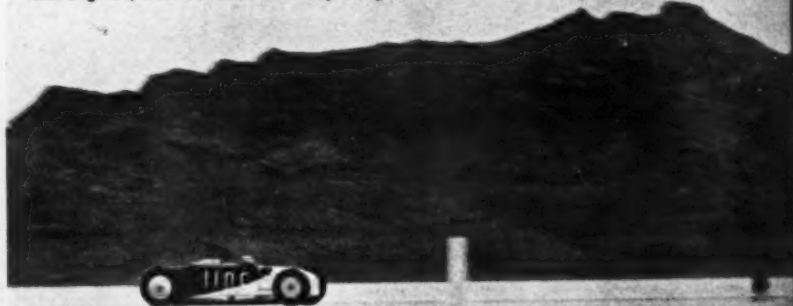
In the meantime activity in the pits increased as cars continued to arrive at the salt flats. Coupes, sedans, lakesters, pickups, streamliners, in fact cars of every shape and description — and even some that are beyond describing — were still turning in at the world famous course.

Later, as engines began to weaken under the strain of undetermined amounts of nitro-methane and other fuels not originally intended for automotive use, the town of Wendover be-



R & C inspired "crash helmet" caused considerable consternation at Bonneville.

Rear engined, modified roadster roars past lights at the end of time traps.





The three fastest cars in each class received one of the glistening trophies displayed here.



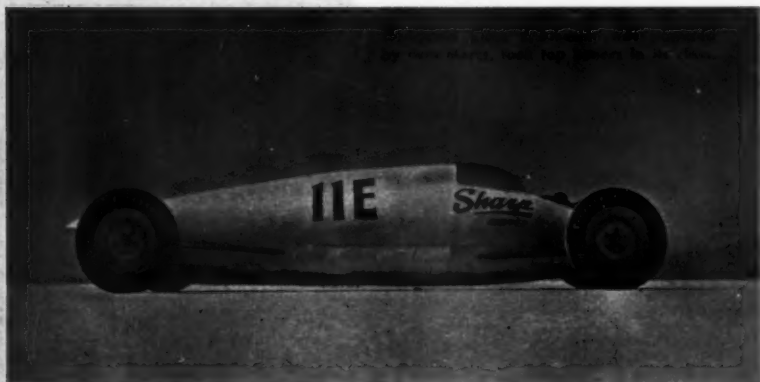
200 MPH Club member LeRoy Neumeyer set 205.71 mph average in this "C" Lakester.

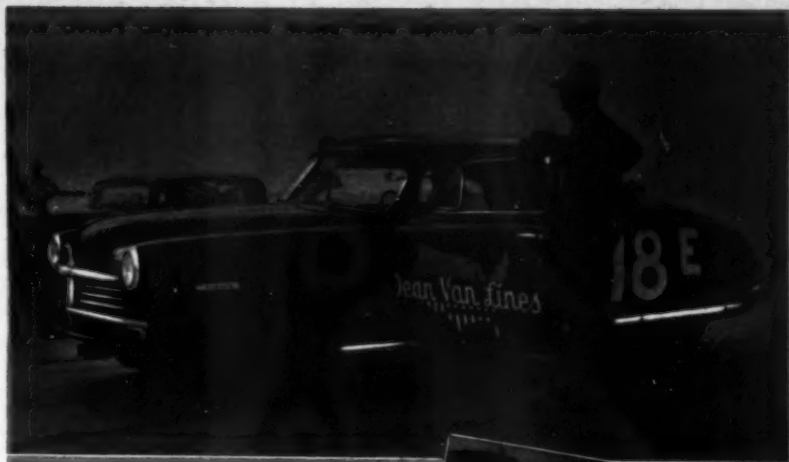


Howard Johanson's twin-tank streamliner lacked time needed to qualify for record.

gan to take on the appearance of an enormous outdoor garage. Since no one is allowed on the salt after dark, major engine and chassis changes and alterations were completed in front of motels, restaurants and service stations. From nearly every overhead projection there hung an engine. Chain hoist space was at a premium — some enthusiasts brought their own hoist stands and those who had not foreseen the future stood in lines to await their turn.

A certain sense of comradeship prevails in that barren section of Western





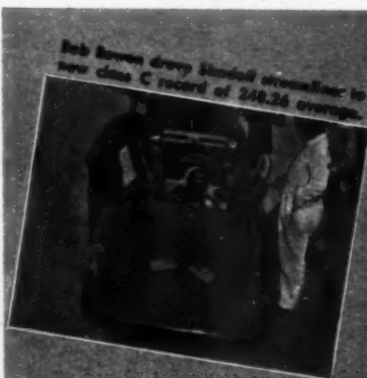
Utah and to say that merely a few tools were loaned would be a gross understatement. Engines, fuel, chassis and bodies were handed around from one enthusiast to another as the fabulous speeds on the salt began to result in a great loss of equipment.

Meanwhile, out on the salt, things had been happening. A Hudson turned 157 mph. When the word was passed around town few people could believe their ears but an hour later came — Chrisman's coupe went 192 mph! Oddly enough, the

(Continued to page 63)



Streamlined sports coupe, powered by Chrysler V8, turned 186 mph on gun.



Bob Brown drove Standard streamliner to new class C record of 248.26 average.



Starter Higdon, left, and Gene Lillenc, who drove (shown in car) grand total.

Bakersfield Chevrolet



photos by Spence

BAKERSFIELD, CALIFORNIA, lying some one hundred and twenty-five miles north of Los Angeles, is generally looked upon by L.A. residents as being located in the center of a hot, dry plain and full of smelly oil wells. Those who chose to live in Bakersfield consider L.A. as being over populated and continually covered by that eye-smarting smog.

Regardless of the feelings displayed by the inhabitants of these Southern California cities, both population centers have at least one thing in common — Rods and Customs, and plenty of both.

Take Dick Adams of Bakersfield, for instance. His father owns a toy shop — and what wouldn't a lot of kids give to be able to say that! In Dick's younger days, of course, Dad's store was considered to be headquarters. Since he's grown up, though, Dick has turned to things a bit more realistic and chosen an automobile as his plaything.

The Chevy pictured here was purchased, by Dick, right from a dealer's showroom early in 1949. At that time, Dick was content to drive around with a stock set of wheels but as the years passed and newer cars with added Detroit-type refinements made their appearance, Dick made up his mind that a few changes were in order.

The first thing to do in a case such as this was to find a good, reliable bodyman — which Dick did. Richard Stutzman, it turned out, was a metal-pounder of the first degree but was too busy being a shop foreman to take on any custom work. He finally agreed, though, to do a little work on Dick's car each night, so alterations were begun.

In keeping with the popular trends, the doorhandles were removed, the hood ornaments discarded and the grille left to await its fate in some scrapyard. This, obviously, left a good many holes in the body so there was nothing left to do but fill them.

The headlights were taken bodily from their location on each fender and

ROD AND CUSTOM, DECEMBER, 1954



Composite grille was made up from '54 Pontiac center bar and '52 Oldsmobile top bar. "Teeth" inside center oval are trim strips from a '53 Mercury's rear fender simulated "airscoop".



If lowering it once doesn't give the desired result, then lower it twice! Two sets of 3" blocks are used on each side of this car. Outside tailpipe treatment prevents "hanging up".

Transverse-pleated Naugahyde, in a color best described as "improbable peach", adds unique touch to headliner. Contrasting color is egg-shell white. Notice left-hand column shift.





Cadillac hubcaps, '53 model, enhance the front end. Reworked "A" arms made it possible for Adams to lower this Chevrolet three inches in front to give the car a balanced appearance.

the mounting clips reversed. The headlight doors, or rims if you prefer, were then brazed to the fenders in their original position and the seams worked out so that no joining line was evident. The

bulb units themselves were replaced from beneath the fender and — presto! Frenched headlights.

The top grille bar from a '52 Oldsmobile was fitted beneath the hood and the center portion of a '54 Pontiac grille was affixed in the resulting open area between the top bar and the gravel pan. An added touch to the grille is the use of two '53 Mercury simulated fender-scoop teeth bolted just inside the Pontiac bar opening.

Around in back the same ornament removing and hole-filling process, as had taken place on the front and sides of the car, was repeated. The decklid is now unlatched by the simple expedient of pulling a T-handle located just aft of the rear seat on the package tray.

The Deluxe version of the '49 Chevrolet included a rub strip that extended rearward from the headlights to the trailing edge of the doors. This item was the next to go! More hole-filling and finish metal work soon eliminated



this trim which, in Dick's opinion, was not at all in keeping with the appearance he had in mind.

A Pontiac agency came up with two '53 taillights and these were mounted in the aft end of each rear fender. Installing the lights required a bit of fender re-shaping but the result seems to have been well worth the effort.

A few other minor alterations were performed to the body, then work was turned to the chassis. Why? It was too high, naturally. Two sets of three inch blocks brought the tail down a total of six inches and reworked. A-arms and coil springs did the same to front end to the extent of three inches.

Looking through an old issue of the original HOP UP magazine, Dick ran across an answer to the old question of, "What to do with the tailpipes". The car he used as an example was a '49 Chevy so a glance at the photos showed him what the finished project would look like. However, Dick chose to run his tailpipes along the lower edge of each rear fender instead of up and over the skirts like the car in the book.

The car, by this time, was ready for its paint job. Dick wanted something outstanding, and that's exactly what he got! The color is hard to describe, and more difficult to write about, so we'll refer to it as pinkish-peach - if you know what we mean.

Amazingly enough, Art Weins, upholstery man deluxe, came up with some Naugahyde that matched the car's exterior exactly so Dick had him do the car in it - with patches of off-white, or eggshell, to break the monotony.

A set of '53 Cadillac hubcaps completed the car as far as Dick was concerned. When summer rolls around, Dick spends his time helping his Dad in the toy shop. His heart isn't in it like it was years ago, though. Instead of looking fondly over all the wonderful games, balls and electric trains, Dick prefers to look lovingly through the store window at his Toy Shop Custom parked just outside. ●

ROD AND CUSTOM, DECEMBER, 1954



Pontiac taillights and custom Chevrolets go together quite often. Although fender mounting required some re-shaping, the result appears to have been well worth the extra trouble.

Rear seat passengers "never had it so good". Transverse-pleat theme is carried out in seats to match headliner treatment. Chrome plated garnish rails contrast well with upholstery.





When the engine is installed in the rear end of a stock-bodied vehicle, such as this '27-T Modified Roadster, ease of maintenance may or may not be improved depending on how done.

This Chrysler V-8 is located in the rear of a '32 Ford roadster. Front of the car is towards the left of this photo. Accessibility in this case could sometimes be very awkward.



rear engine:

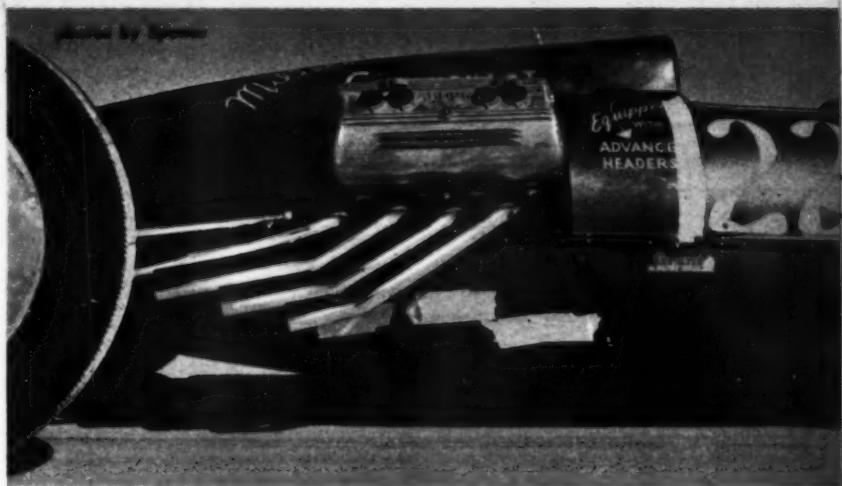
Is It the Answer?

by Bob Pendergast

The remarks of Dr. Eberan von Eberhorst quoted in italics in the following text are reprinted from the "Formula III Year Book, 1953-1954" through the kind permission of the publishers, Pearl, Cooper, Ltd., London, England.

WHEN PEOPLE speak of a rear-engine car they frequently do so in a tone of voice that could be described as being almost reverent. This is usually due to the popular notion that placing the engine in the rear solves all problems of weight distribution, traction, handling, etc. This is far from true, although rear engine cars can be far superior to cars of conventional layout under certain circumstances. Like all automotive engineering practices, the location of the engine is part of the overall design; a means to an end, not an end in itself. It wouldn't do to take just any old stock car and relocate the engine to a rearward position by the simple expedient of torching a hole in the rear floor and mounting

ROD AND CUSTOM, DECEMBER, 1954

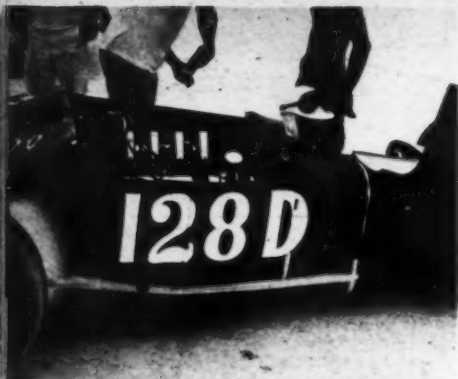


One of the more subtle advantages of the rear engine location is the ease with which an exhaust system designed for maximum scavenging may be installed, as on this Ardun-Mercury.

the engine where the back seat used to be! True, this has frequently been done to cars intended for drag racing, but these cars benefited from the engine's relocation because of the specific purpose for which they were designed. For drag racing, a car with a large percentage of its total weight on the driving wheels has a distinct advantage because traction is all-important. Yet in European Grand Prix Racing, which is one drag race after another interrupted by sweeping bends and hairpin turns, the most outstanding cars ever built for this type of competition were front engine, rear drive configuration! They were the famous pre-war Mercedes-Benz race cars, known and respected by all the leading competition hot rod builders and drivers. But that doesn't mean that a rear engine lakes-drags car is all wrong, for a car of that type will never be called upon to negotiate turns on an ordinary public road at over 150 mph as the Mercedes-Benz were! The fact that the most successful big-time race

ROD AND CUSTOM, DECEMBER, 1954

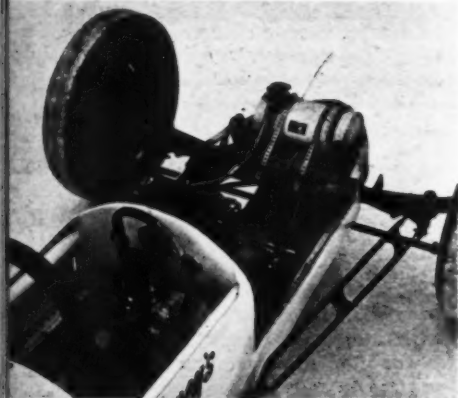
cars ever built were of the front engine type has little bearing on the suitability of rear engine cars for straightaway competition. It just serves as an excellent illustration of the inescapable fact that a car must be designed for the type of use it is to be put. The Mercedes-Benz competition record also points up the fact that the rear engine layout is not the supreme answer it is sometimes held to be. True, the rear engine set-up is still the best from the standpoint of low horsepower loss between the engine and the driving wheels. But in any type of driving where the car's driver must be able to detect the slightest deviation from the norm in the attitude of the car on the road, the front engine position is still the best. Who says so? The man who built the most spectacular rear engine race cars the world has ever seen, Dr. Eberan von Eberhorst. Dr. Porsche and von Eberhorst collaborated on the design of the fabulous Auto-Unions, the only cars that came anywhere near giving the Mercedes-Benz



This "T" bodied Modified Roadster uses the section of the car formerly occupied by the passengers for an engine compartment. Extreme forward location of the driver is obvious.

machines a run for their money in pre-war Grand Prix racing. When Dr. von Eberhorst was asked to describe the "ideal" race car, he stated that it would, in his opinion, have the engine in front driving through the rear wheels. But why would the co-designer of the most outstanding rear-engined

Here's what goes up front in most rear-engine designs. Fuel tank, battery, electric tachometer transmitter case and steering gear box. Inboard mounting of shocks helps streamlining.



cars ever built speak out against the basic principle they were designed around? The only possible answer is that experience is still the best of teachers, and Dr. von Eberhorst certainly has had more experience with rear engine race cars than any living engineer. But let's hear what the Doctor had to say: "I would abandon the idea . . . of having everything mounted in the rear of the car which necessitates pushing the driver to the most forward position of the car until he is sitting nearly over the front wheels. This is a bad position for a driver, and one which, speaking from experience of the Auto-Union, requires very special skill to drive fast. The reason for this is that the closer the driver is sitting to the front wheels the nearer he is to the center of instantaneous skidding motion of the car and the less able he is to control those skidding motions by corrections through steering. A driver sitting on the front wheels merely turns about himself if the car skids, and he does not feel the full sensation until it is too late. On the other hand, a driver sitting nearer to the rear wheels (where maximum lateral acceleration occurs in a back wheel skid) feels an earlier and much stronger sensation of the behavior of the car and is thus better able to control it. This may not apply so much to more experienced racing drivers but I would certainly suggest that it applies to the average racing driver. We in Auto-Union found it very difficult to discover drivers with that high degree of sensitivity which was needed to control a car not having conventional driver sensitivity to its behavior on the road."

So what does all this mean to the hot-rod sport? Just that rear engine design is not the automatic answer to all car design problems. It is a compromise. With rear engine you get more traction and rear wheel horsepower, and in turn you give up having most of the normal sensations while driving that are necessary to drive the car at speed. In case any of our many competition minded

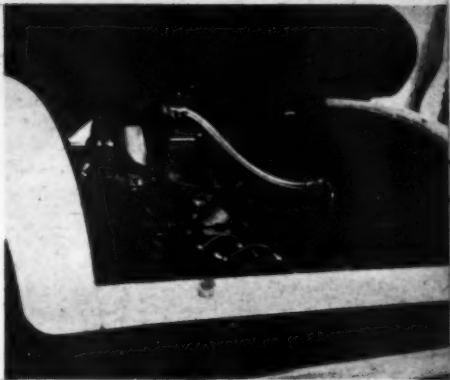
ROD AND CUSTOM, DECEMBER, 1954

readers may take the preponderance of rear engine cars in 500cc. racing as an unconditional endorsement of the engine-behind-the-driver school of thought, they should bear in mind that these Formula III cars are designed with a concerted attempt to reduce overall weight to an absolute minimum, just like a dragster. The weight reduction gained by eliminating the driveshaft necessarily pushes the driver's position up front, where, as Dr. von Ebenhorst points out, he is the last one to know when the car is about to spin! So far, this bad feature has been considered tolerable because of the aforementioned weight reduction. However these little bombs are getting faster all the time so the driver's position is coming under closer scrutiny by the designers.

Auto-Union's best driver was a young man who had never driven a race car before he joined the team! Bernd Rosemeyer was his name. He learned the European circuits while competing in motorcycle Grand Prix as a rider for the DKW factory. Auto-Union needed someone who had nothing to un-learn about driving a race car, because their rear engine machine just didn't give the driver the conventional impressions. That's why they picked Bernd!

So which is best? Rear engine cars don't let the driver know what they're doing, but front engine cars are usually heavier and get less horsepower to rear wheels. From a streamlining standpoint, one is just as good as the other. Cars that are very clean, aerodynamically speaking, have been produced in both front and rear engine form. For any vehicle demanding maximum acceleration in a straight line the rear engine configuration has many advantages to offer. The main thing necessary to car of this type would seem to be a driver who knows rear-engine car's handling characteristics. For a straightaway time trials machine acceleration is of secondary importance and the increased weight and less efficient power transmission qualities of the front engined

ROD AND CUSTOM, DECEMBER, 1954



Another view of the rear-engine twin-Chrysler powered '32 Ford. Access to Scintilla magneto and fuel-injection pump is through rear deck. Note injector tube coiling around the magneto!

car would be offset by its better "built-in-handling". However, just what constitutes a run, preceding the "traps", of sufficient length that acceleration becomes of less importance is debatable. There are some cars for which even Bonneville is too short! ●

You find engines in the strangest places! This Roots-blown flathead Merc mill has found its home in the passenger compartment of what was formerly a '34 coupe, now a competition car.



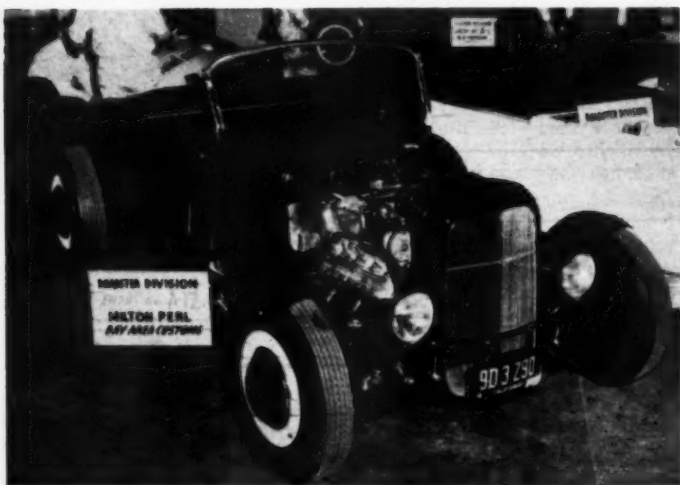
A How-To-Do-It Feature:

**YOUR CLUB CAN
PUT ON A**

CAR SHOW

by Bob Pendergast

Signs are an integral part of any car show. They aid the judges and spectators alike, and decrease the confusion that large gatherings always seem to create.



"CAR CLUBS can successfully promote automobile shows!" That's what George Barris said when we asked him his opinion on the subject. George should know, having been president of the "Kustoms" club for seven years. The original "Kustoms of L.A." were one of the first groups (if not *the* first) to participate in show competition as a club.

Many clubs have wanted to do something really *big* in the way of a group activity, but have shied away from the proposition of putting on a car show because they felt that it was too big a project for them to tackle. The fallacy of this line of thinking has been proven repeatedly by the excellent car-club sponsored auto shows that have already been held.

The first step the sponsoring group must take is obtaining a location for

the proposed show. Usually the problem resolves itself into a proposition of securing the use of a suitable location other than just locating a place, for the places a car show can be held are almost unlimited. Shows have been held in super-market parking lots, auto dealers' showrooms, school athletic fields, and even in airplane hangars!

One thing must be borne in mind. When approaching the owner of a location in regard to obtaining the use of it for a show, the topic of the conversation should not be how nice it would be for your club if he gave his permission, but what is in this arrangement for *him*. You can be beaten before you start if you're not ready for this question, because it is sure to be asked.

What's the answer? Crowds! Every business man feels that if he could just

photos by G. Barris

Earl's Court Auto Show in London is world's largest. More than a half-million people attend it annually. Balcony featuring manufacturer's exhibits is but the first of five!





Los Angeles' Hamilton High School staged the first school-sponsored car show in 1951. Cars owned by students made up bulk of entries but over-all turnout was much better than expected.

get enough people to realize what his firm has to offer, his fortune would be made. If your club can convince a hard-headed merchant prince that the use of his store's parking lot will bring more than the usual amount of people past his window display, the location you desire will be yours for the asking. The same principle applies to almost any location, whether indoors or out. If you really try, you might even wind up with an auditorium!

The date your show will be held will of necessity be fixed by the availability

Downey's Chamber of Commerce members not only donated trophies but also participated in the judging. Here a C.C. member and a local police officer check on engine compartment.



of the location, so the next step will be publicity. Once again the "crowd appeal" angle should be your theme. Posters placed in the windows of nearby business establishments will announce your show locally, but the members of your club can help by running posters on their cars as well.

After the posters have been in the merchant's windows for a few days, drop around to see the store owners. Ask them if any comments have been made by their customers regarding the announcement of your show. If you placed the posters in a prominent position the store owner's reply is sure to be yes. Now that he has seen the interest that people take in auto shows, start working around to the subject of businessmen donating trophies! Point out the fact that everyone who assists the club in this project in any way will have their contribution acknowledged at the show, both with posters listing the trophy donors and over the P.A. system. Speaking of a P.A. system, this process of acknowledging assistance is the way you get the use of one!

Much leg-work can be dispensed with if you are able to present your proposition to all the merchants in your area simultaneously. The usual way to do this is to contact the local Chamber of Commerce, requesting an audience at their next regular meeting.

Now is the time to start distributing entry blanks to the same locations where you hung posters. The printing cost can

ROD AND CUSTOM, DECEMBER, 1954

be lessened by allowing the shop to include an advertising message of its own on the blanks. As the entries come in, you can determine how many classes of competition and consequently how many trophies will be required. In order to procure this information the entry blank must have a space for the entrant to give a brief description of his car.

Classification can make or break a car show. The best judges in the world couldn't try a case in court without the law to guide them, and the classes you create for your show are the equivalent of the law as far as the contestants are concerned. Although we won't attempt to impose a set of rules upon you, we asked George Barris what he thought was the best set-up encountered by the original "Kustoms" out of all the shows in which they have competed.

The system which has apparently given the most satisfaction to contestants, judges, promoters and spectators alike has been based on the purpose for which the car was designed, and then is further broken down by sub-dividing the classes according to how much the car has been altered. Under this system a car that has been chopped, body channeled, or sectioned competes only against other cars having these same modifications. Cars in this category are known as Full Customs. The Semi-Custom class includes all other customized cars. Both these classes are sub-divided into Open and Closed divisions. This is done to segregate the roadsters and convertibles from the coupes and sedans. Street roadsters and coupes, that is cars that are intended both for transportation and competition, are two more divisions that are frequently used. If the entries received indicate that there will be some strictly competition cars present a class for them must be provided. On the West Coast where "hot" hot rods are common, this class is sub-divided even further, to differentiate dragsters, lakesters and streamliners! This illustrates a point to remember: the type and number of classes

ROD AND CUSTOM, DECEMBER, 1954



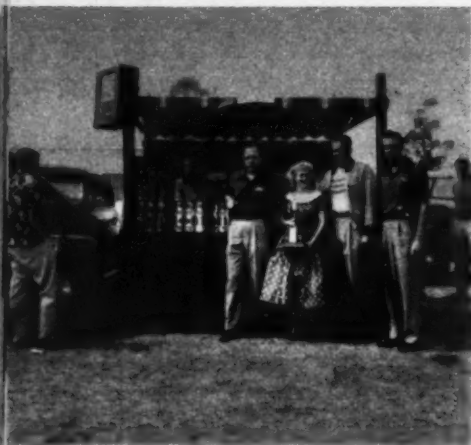
Competition roadsters are judged in class for cars built strictly for "go". Emphasis is usually on safety of construction and neatness, for competition potential cannot be guessed.



Danny Lares' pre-war Ford took first place in the "Full Custom" class at the car show held on the Narbonne High School grounds. Local car clubs, "Road Kings" and "Scarabs," took part.

An interested spectator shows good taste by looking without touching. Car was winner of the "semi-custom" class at the Downey show. Modified "Studs" like this one are popular.





When the car clubs in the Downey, Calif., area put on a show they obtained the use of the high-school athletic field. Here's their trophy booth, the sponsors and the show "queen".

Competition in coupe classes can frequently be decided by the excellence of the car's interior. If all other things are equal, the quality of the upholstery decides the issue.



must be tailored to the entry list. Otherwise you may be embarrassed (or lynched!) when everyone discovers you're awarding five trophies in a class with five entries and three trophies in a class with twelve entries!

In addition to the classes already mentioned, there should be a top award for the "best in show" car, which is frequently selected by popular vote of the spectators. This method of selection has been responsible for these cars being referred to as "sweepstakes winners". Whether the sweepstakes winner is selected by the public or the show judges, one thing should be remembered. Doubling up on the trophies, that is awarding more than one to a single car, must be avoided. If a car wins the big sweepstakes award, it should be disqualified from winning the top award in its class. This gives the rest of the contestants a chance for a class win without having to compete against a car that is already acknowledged as being superior by the judges.

Additional classes may be added to suit the circumstances prevailing at your particular show. If there are a large number of slightly modified cars in your area, you might set up a special class limited to cars with not more than three minor modifications, for example:

How many classes a show has is usually determined by two factors: the nature of the entries and the number of trophies available to the sponsors.

The judging of the cars is seldom done the same exact way at any two given shows, but the same basic formula is usually followed. A maximum number of points that a car may amass is established, then the car coming closest to this figure is said to be the winner in its class. For instance, you might set it up so that the cars at your show would be judged on five main features: mechanical condition and safety, engine and compartment, quality of body work and paint, interior, and originality and beauty of design. One hundred points

(Continued on page 62)

by Bob Pendergast



How-To-Do-It Feature:

PISTONS *for Punch!*

WHEN THE average enthusiast hops-up his car's engine, he is usually after more "punch". "Punch", as used by the automotive minded, means more power. But more than just that. True "punch" means power *right now*, when you want it. Frequently, "when you want it" is at a comparatively low speed. You want more power at that speed in order to accelerate to a much higher speed, and quickly, too. Unfortunately, many of the standard hop-up engine modifications give stock (or less than stock) acceleration at normal highway speeds. An increase of 10 or 15 percent in the engine's horsepower at speeds above 80 mph quite often is attained at the expense of a 10 or 15 percent decrease in power below that speed!

Two methods of increasing horsepower at *all* speeds are available to the enthusiast. Increasing the engine's piston displacement is one method. Raising the compression ratio is another. Certain makes of OHV engines lend themselves easily to the installation of special pistons whose larger size not only increases the displacement but whose crown-contour also raises the compression ratio

Bob Garrett, chief design engineer at Speed-O-motive, was about to remove the boring bar from the Chevrolet block when this photo was taken. Note Speed-O-motive Hi-Dome piston at right.





Piston pin is tapped into place with light hammer and a drift of suitable size. Pin fit in Chevrolet rod can be quite snug without any bad effect because in this engine it will be clamped.



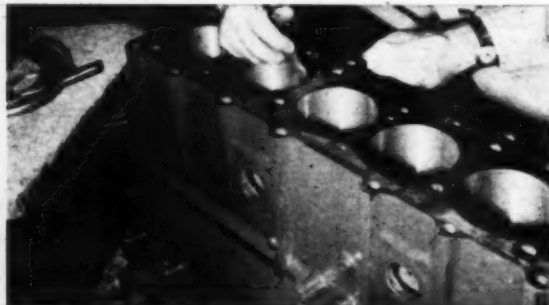
Tightening the wrist-pin clasp with torque wrench, if one is available. Note manner in which rod is clamped.

simultaneously. Boring out the cylinders and installing pistons of this type hops up the engine by both of the most practical methods in one operation.

Chevrolets have always been popular with speed and power enthusiasts, so the editors of *ROD & CUSTOM* chose that make of car to be the example shown here. Other OHV engines enjoy similar benefits in performance when equipped with oversize hi-dome pistons.

Speed-O-motive, of El Monte, California, manufacture a quality hi-dome piston for OHV engines that is especially well-suited for road car use because of its slotted skirt, cam-ground design. The construction of this particular make piston makes it possible for the machinist doing the bore job to "set-up" the clearance as close as .0015", which means that noise, rate of wear, and oil consumption should be the same as stock.

Clearance between ends of rings must be sufficient for expansion at running temperatures. Gap is checked with feeler gauge at bottom of bore as well as at top, as shown here, to be safe.

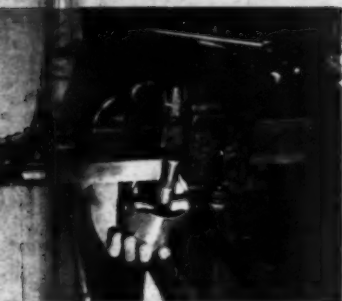


Bob Garrett, chief design engineer, informed us Carl's Automotive Center, was rebuilding a Chevrolet Speed-O-motive Hi-Dome. So,

Benny Casmon, shop foreman, finished the engine clean-up procedure the boring bar and commencing Speed-O-motive pistons, the clamped into the piston itself. The motor has to do is remove sufficient size of the cylinders is the same crown of the piston. This eliminates the "tragic" mistake! The result is

Since the pistons come with the next step is installing the pistons. This is followed by an alignment of the rod is perfectly true. Ring

Ring clearance in land is an important factor. If the rings do not have a certain amount of up and down movement, this can result in "oil pumping". U



in clamp, in the rod is best done with a
is adjustable, to factory specified tension.
each rod is clamped in vise for steadiness.

Chief design engineer at Speed-O-motive,
Automotive, a Speed-O-motive deal-
a Chevrolet engine slated to use the
Hi-Domes. So, we were off to El Monte!
shop foreman at Carl's, had just
clean-up process. Bob Garrett mount-
and commenced to go to work. With
stone, the correct clearance is main-
tained itself. All the boring bar oper-
move sufficient metal so that the final
clearance is the same as that marked on the
stone. This eliminates any possibility of a
variation. The result is .0015 clearance.

The pins come with the pins already fitted,
installing the piston and pin on the rod.
After an alignment check, to insure that
the pins are true. Ring clearance between the

is an important thing to check. Rings must
have up and down freedom, but an excess of
"pumping". Use feeler gauge to be sure.



After pin is clamped in rod, alignment of piston and rod assembly
can be checked on jig designed for that purpose. Corrections can
be made by twisting rod, while in vise, with bar as desired.

piston lands and the rings is then checked with a feeler
gauge. Speed-O-motive Hi-Domes come with rings engi-
neered for the piston, so no difficulty was encountered.
An instruction sheet provided with the pistons specifies
the correct clearances for the rings, both on the piston
and in the bore. Ring end-gap clearance was checked
with a feeler gage with the pistons inserted in the bore,
both at the top and bottom of the cylinder. After the
rings were installed on the pistons, the engine was ready
for re-assembly.

After a final check for cleanliness, Benny reported the
block ready for the installation of the main bearing in-
serts. These were liberally oiled, and then installed. The
re-ground crank was then placed in position. Main bear-
ing caps were the next item to be considered. Although
this particular engine had insert mains, the Chevrolet
design still called for shims between the main bearing

This Hi-Dome piston installation was done at Carl's Automotive,
Speed-O-motive dealer. Benny Casmona, shop foreman, is shown
here installing the crankshaft in our Chevrolet test-engine.





Piston and rod assemblies are liberally lubricated with light-weight engine oil before insertion. Since the engine is to be buttoned up immediately, dust need not be feared.

The crucial step! Pistons are rapped home with handle of light hammer. Benny is guiding rod onto its bearing. Note care with which Garrett is using the ring compressor, a vital tool.



caps and the block. This is done so that at a future date the shims may be removed to compensate for increased clearance due to wear.

After torquing the main caps to the factory specified foot-pounds tension, Benny pronounced the engine ready for the actual piston installation.

Bob Garrett now showed the proper way to install the complete piston-rod assembly. Using a ring compressor to prevent the rings from interfering with the insertion of the assemblies into the cylinders, Bob tapped them gently with the wooden handle of a hammer. Benny was stationed on the other side of the block assembly to guide the con rods onto their bearings as Bob tapped them through to him.

Bob tells us that the greatest single cause of piston breakage is not nitromethane fuel mixtures, as many people believe, but improper installation! It is possible, he pointed out, for the person installing the pistons to actually break the ring lands without knowing it if they are careless at this crucial stage of the operation! The rings may slip out from under the compressor just enough to interfere with the upper edge of the cylinder. The careless mechanic will just hit the top of the piston a little harder instead of investigating to see what is holding up progress. If this extra-hard blow is hard enough, the ring land may crack, allowing the ring to slip back under the compressor. The assembly will then go on into the cylinder without any further trouble, but the damage is done! An engine assembled in this manner will have a very short life expectancy in competition.

With all the piston and rod assemblies inserted into the cylinders, all that remained was to install the rod caps, making sure that the oil dippers, used on all Chevrolets built previous to 1953, were pointing in the direction of crankshaft rotation. After Benny torqued the rod nuts to the proper tension, we considered our project complete; the installation of *Pistons for Punch!* ●

ROD AND CUSTOM, DECEMBER, 1954

CHART FOR CONVERTING ELAPSED TIME INTO AVERAGE MILES PER HOUR FOR THE STANDING OR FLYING, QUARTER MILE

Find your time to tenths of a second in the left hand column, then read across to the column designating the hundredths.

Secs.	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
9.00	100.00	99.88	99.77	99.66	99.55	99.44	99.33	99.22	99.11	99.00
9.10	98.90	98.79	98.68	98.57	98.46	98.36	98.25	98.14	98.03	97.93
9.20	97.82	97.71	97.61	97.50	97.40	97.29	97.19	97.08	96.98	96.87
9.30	96.77	96.67	96.56	96.46	96.35	96.25	96.15	96.05	95.94	95.84
9.40	95.74	95.64	95.54	95.44	95.33	95.23	95.13	95.03	94.93	94.83
9.50	94.73	94.63	94.53	94.43	94.33	94.24	94.14	94.04	93.94	93.84
9.60	93.75	93.65	93.55	93.45	93.36	93.26	93.16	93.07	92.97	92.87
9.70	92.78	92.68	92.59	92.49	92.40	92.30	92.21	92.11	92.02	91.93
9.80	91.83	91.74	91.64	91.55	91.46	91.37	91.27	91.18	91.09	91.00
9.90	90.90	90.81	90.72	90.63	90.54	90.45	90.36	90.27	90.18	90.09
10.00	90.00	89.91	89.82	89.73	89.64	89.55	89.46	89.37	89.28	89.19
10.10	89.10	89.02	88.93	88.84	88.75	88.66	88.58	88.49	88.40	88.32
10.20	88.23	88.14	88.06	87.97	87.89	87.80	87.71	87.63	87.54	87.46
10.30	87.37	87.29	87.20	87.12	87.04	86.95	86.87	86.78	86.70	86.62
10.40	86.53	86.45	86.37	86.28	86.20	86.12	86.04	85.95	85.87	85.79
10.50	85.71	85.62	85.55	85.47	85.38	85.30	85.22	85.14	85.06	84.98
10.60	84.90	84.82	84.74	84.66	84.58	84.50	84.42	84.34	84.26	84.19
10.70	84.11	84.03	83.95	83.87	83.79	83.72	83.64	83.56	83.48	83.41
10.80	83.33	83.25	83.17	83.10	83.02	82.94	82.87	82.79	82.72	82.64
10.90	82.56	82.49	82.41	82.34	82.26	82.19	82.11	82.04	81.96	81.89
11.00	81.81	81.74	81.66	81.59	81.52	81.44	81.37	81.30	81.22	81.16
11.10	81.08	81.00	80.93	80.86	80.78	80.71	80.64	80.57	80.50	80.42
11.20	80.36	80.28	80.21	80.14	80.07	80.00	79.92	79.85	79.78	79.71
11.30	79.64	79.57	79.50	79.43	79.36	79.29	79.22	79.15	79.08	79.01
11.40	78.94	78.87	78.80	78.74	78.67	78.60	78.53	78.46	79.39	78.32
11.50	78.26	78.19	78.12	78.05	77.98	77.92	77.85	77.78	77.72	77.65
11.60	77.58	77.51	77.45	77.38	77.31	77.25	77.18	77.12	77.05	76.98
11.70	76.92	76.85	76.79	76.72	76.66	76.59	76.53	76.46	76.40	76.33
11.80	76.27	76.20	76.14	76.07	76.01	75.94	75.88	75.82	75.75	75.69
11.90	75.63	75.56	75.50	75.44	75.37	75.31	75.25	75.18	75.12	75.06
12.00	75.00	74.93	74.87	74.81	74.75	74.68	74.62	74.56	74.50	74.44
12.10	74.38	74.31	74.25	74.19	74.13	74.07	74.01	73.95	73.89	73.83
12.20	73.77	73.71	73.64	73.58	73.52	73.46	73.40	73.34	73.28	73.23
12.30	73.17	73.11	73.05	72.99	72.93	72.87	72.81	72.75	72.69	72.63
12.40	72.58	72.52	72.46	72.40	72.34	72.28	72.23	72.17	72.11	72.06
12.50	72.00	71.94	71.88	71.82	71.77	71.71	71.65	71.59	71.54	71.48
12.60	71.42	71.37	71.31	71.25	71.20	71.14	71.09	71.03	70.97	70.92
12.70	70.86	70.81	70.75	70.69	70.64	70.58	70.53	70.47	70.42	70.36
12.80	70.31	70.25	70.20	70.14	70.09	70.03	69.98	69.93	69.87	69.82
12.90	69.76	69.71	69.65	69.60	69.55	69.49	69.44	69.39	69.33	69.28
13.00	69.23	69.17	69.12	69.07	69.01	68.96	68.91	68.85	68.80	68.76
13.10	68.70	68.64	68.60	68.54	68.49	68.44	68.38	68.33	68.28	68.23
13.20	68.18	68.13	68.07	68.02	67.97	67.92	67.87	67.82	67.77	67.72
13.30	67.66	67.61	67.56	67.51	67.46	67.41	67.36	67.31	67.26	67.21
13.40	67.16	67.11	67.06	67.01	66.96	66.91	66.86	66.81	66.76	66.71
13.50	66.66	66.61	66.56	66.51	66.47	66.42	66.37	66.31	66.27	66.21
13.60	66.17	66.11	66.07	66.03	65.98	65.92	65.88	65.83	65.78	65.72
13.70	65.65	65.61	65.57	65.54	65.50	65.45	65.40	65.36	65.31	65.26
13.80	65.21	65.16	65.12	65.07	65.02	64.98	64.93	64.88	64.84	64.79
13.90	64.74	64.70	64.65	64.60	64.56	64.51	64.47	64.42	64.36	64.31

(To convert elapsed times into average miles an hour either above or below the times covered by this chart, divide the number of seconds into 900.)

(Full size reprints of the above chart are available, on heavy stock paper, by sending 10c in coin or stamps to QUINN PUBLICATIONS, 4949 Hollywood Blvd., Hollywood 27, Calif.)

A How-To-Do-It Feature:

Smoothing

A TWO-PIECE HOOD

photos by Spence



BEFORE



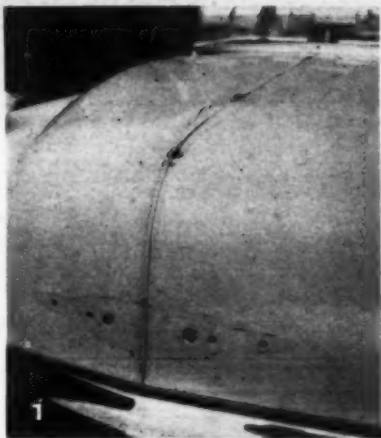
AFTER

AS LONG as automobile manufacturers choose to hang ornamental decorations on the hoods of their cars, dyed-in-the-wool custom enthusiasts will keep themselves busy stripping them off. When the designers finally decide that a smooth hood attracts more attention than one decorated with nameplates and crests, only then will the body shops start plastering accessories back on. Oh, well, variety is the spice of life.

The Barris Kustom Shop of Lynwood, California, called us recently saying they had lined up a simple hood smoothing job so, with camera in tow, we trekked down to see if the job could possibly be performed by the average enthusiast with but a minimum of tools and customizing knowledge. We eventually learned that it could, so if you happen to be driving a car with a two-piece hood and are a little dubious about filling in that long seam, then here is an alternate method of eliminating the unnecessary spangles that will keep you busy during a week-end.

The primary requirement for a job of this nature is a gas welding outfit. If you don't happen to have one and

ROD AND CUSTOM, DECEMBER, 1954



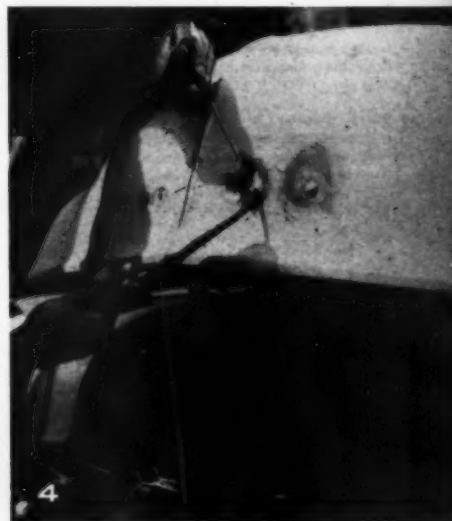
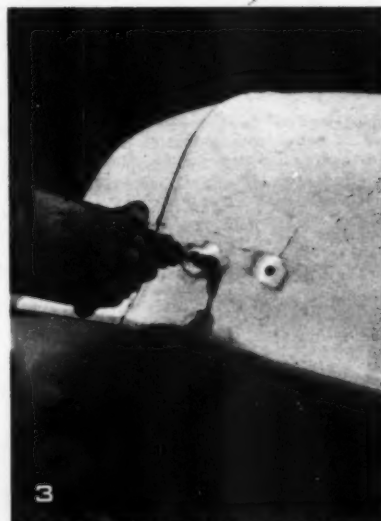
Bolts visible nearest center line are to be removed; they contribute little or nothing to the rigidity of the hood latch mounting plate.

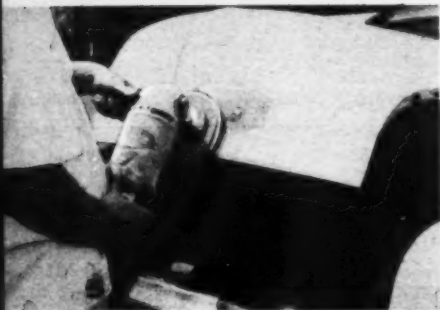


Since all of the six holes to be filled will be brazed, it is necessary to remove paint from around them to insure effective bonding.

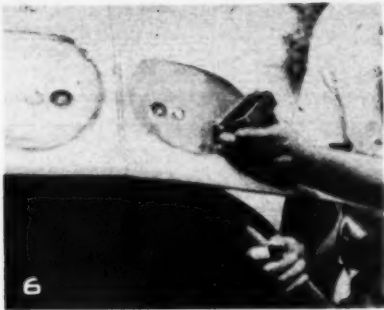
Edges of holes to be brazed are chamfered with pointed grindstone in order to enlarge area available for brazing metal to adhere against.

Actual brazing operation is relatively simple compared to tedious preparation necessary as depicted in previous photos in this series.

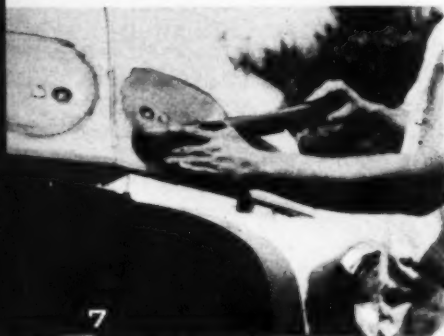




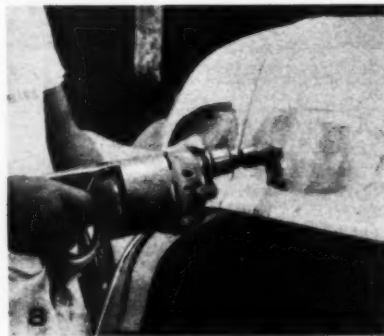
Disc grinder is employed to remove excess left after brazing. Care must be taken to prevent the grinder from removing too much hood metal.



Hand-held dolly is used with pick hammer to remove any slight waviness caused by brazing heat. No "substitute for experience" here!



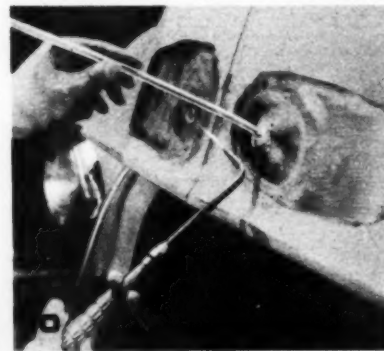
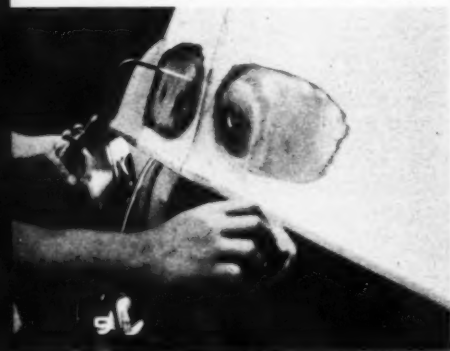
Restoring the hood to its original contours is completed with the aid of vixen body-file. Protruding hood latch bolts have been removed.



Holes where latch bolts formerly protruded are cleaned out with rotary wire brush so as to provide a dirt-free surface for lead-work.

Initial tinning is being done here. Process is similar to soldering. Surface is cleaned with acid then thin lead coating is applied.

Actual leading is in progress. Blob of bar lead is melted onto surface, then spread out with beeswax coated paddle. Filing follows.



your neighbor prefers to keep his tools to himself, then try a supply rental shop. These new businesses, advocating Do-It-Yourself, are springing up all over the place and chances are there is one within a reasonable distance of your home or garage.

Aside from the torch, other tools necessary are a screw driver, pair of pliers, and two or three hand wrenches. Painting is required but this is best handled by a reliable shop specializing in that type of work.

Most two-piece hoods come stock with a thin molding covering the separating line between the halves. The molding generally extends only to the frontal ornament. With this ornament removed, it will be necessary to continue the molding clear down to the base of the hood. Your agency will supply you with another short hood molding which can be added to the one already on your car to make up for the difference in length. In the case of the car used here as an example, one continuous molding was purchased from an auto accessory store.

Fortunately, the new molding was wide enough to cover the hood ornament attaching holes. However, the nameplate removal revealed four holes and two additional bolt heads. Six holes, then, had to be filled before the lengthy center strip was attached.

But before we get too far ahead of ourselves, follow the photos from 1 through 13 and see for yourself how the Barris Kustom Shop completed this easy customizing trick. ●



ROD AND CUSTOM, DECEMBER, 1954



Metal work completed, surface is prepared for painting by hand sanding. Feather-edging like this can also be done with air-powered sander.



Primer is applied over bare metal areas, and is then followed by careful sanding using a rubber block to back up the #320 sandpaper.

Accessory store furnished center strip replaces stock Chevrolet item without modification. Standard spring clips are used for attachment.



One Time Black-Out Model Glistens Anew

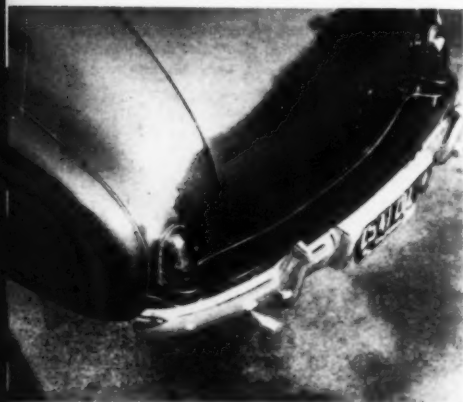
WHEN THE

Lights Go On Again



Lincoln taillights, '51 model, have been faired into the body. Chrome beading separates extension from gravel shield. Bumper assembly is '42 face bar, '48 guards, '49 plate bracket.

photos by Spence



REMEMBER Pearl Harbor! That was the saying on everyone's lips in early 1942. Civilian production was being converted to war work as fast as possible. Automobile factories were no exception. Chevrolet embarked on a program of change-over that called for limited production of passenger cars for the military. These cars were to be called the "black-out" model, because the chrome ornamentation was to be replaced with plastic in order to conserve that vital war material. In order to expedite the change-over, a small number of 1942 model Chevrolets had metal trim that was painted. This method was a stop-gap procedure used until produc-

ROD AND CUSTOM, DECEMBER, 1954



Headlight treatment follows custom tradition, but workmanship is better than average. Lloyd McSparran, professional bodyman, did the car in his spare time with the aid of the owner.



'51 Plymouth grille follows basic contours of body. Note club plaque; this is one of the few "one make" clubs now active in this country. Car's color is '54 Oldsmobile "Baltic Blue".



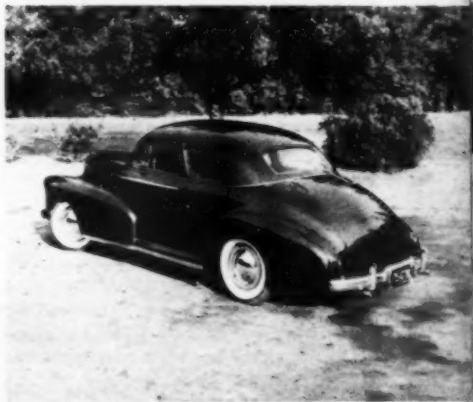
tion of plastic trim caught up. These interim production models were the last cars sold to civilian buyers until 1946.

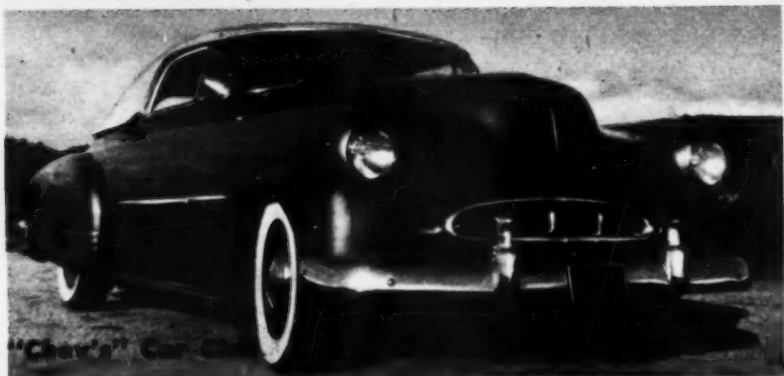
Bill Moore, of Venice, California, is the owner of one of these "war babies". No one would ever know, however, that this car was originally a "semi-black-out" model, because Bill has customized his car to achieve an overall appearance even the pre-war Chevrolets could not approach. It's a '42 club coupe, and ones that are nicer are seldom seen.

Bill founded the "Chev's" car club, for Chevrolet owners only. For some photos and information on cars owned by Bill's fellow club-members, turn to the next two pages. ●

ROD AND CUSTOM, DECEMBER, 1954

Rear three-quarter view reveals the clean lines that have made the '42 through '48 Chevrolets favorite foils for the customizer's art. Car has Belond dual exhaust system, 26" mufflers.





Glenn Houser's Carson Top Shop did the custom interior of this '51 convertible as well as the top. Packard grille in Mercury shell plus metallic blue finish sets off the appearance.

VENETIAN CHEVROLETS

John Dietrich's '51 Bel Aire features a '30 Oldsmobile grille and rear fender extensions made up using '53 Lincoln panels. Chartreuse finish was done after this picture was taken.





One of the hotter cars in the "Chev's" is this '49 club coupe. An engine featuring equipment by Wayne Horning causes the car's performance to equal the appearance given by the bodywork.



Extended fenders shrouding '53 Lincoln tail-light lenses are a feature of this metallic blue and white '52 Bel Aire owned by David Long, a long-time member of the "Chev's".



This shot of Dennis Bowman's '50 convertible was taken in 1950, when the only cars carrying "Caddy" fishtail fenders were Cadillacs. Car is painted a unique metallic "sun gold".

Chris Reinhart's '47 convert features a genuine Glenn Houser-built "Carson" top.



photos by Bill Moore



Bob Aguilera's Mercury Monterey, '53 model, was given its face-lifting at Dick Richardson's Custom Shop in San Bernardino. Not over \$350 went into the job, plus 2½ months.

Reader's CAR OF THE MONTH



What once was phony is now genuine. The imitation airscoop the car comes with in its stock form was a little too much for Aguilera, so he functionalized it immediately.

BOB AGUILERA resides in San Bernardino, California. He is the justifiably proud owner of the beautiful Mercury pictured here, and a steady reader of *ROD & CUSTOM*. Although Bob claims that only \$350 was spent transforming the car from stock, the change in its appearance is just as drastic as some of the two thousand dollar jobs we have seen.

Some of the modifications done to this car are practically standard procedure with custom fans, but it's the non-standard items that make its appearance! The '53 Mercury Monterey was lowered six inches and had the exterior chrome doo-dads the factory is so fond of removed. Next to go were the bars in the grille. Doors and trunk lid were

converted to electric operation, making it possible to eliminate the unsightly handles that formerly operated these components manually.

When modifications reached this stage, the point at which Bob Aguilera had originally intended to quit had been reached. However, he and Dick Richardson, the bodyman who was doing the custom work, had hatched a few new and refreshing ideas, so the project forged on anew. At this point enthusiasm reached a peak.

The phony airscoop effect in the stock hood and rear fenders was rendered functional. Then came the problem of selecting a tail light of the proper shape to be the logical culmination of the car's silhouette. Just about every type of tail

ROD AND CUSTOM, DECEMBER, 1954



"Hey looky dere, one o' dem furrin' cars!" Back to your hoe, peasant, that's a Mercury! In by-gone days, people used to recognize cars by the taillights. Now it's impossible.



photos by owner

light available has been installed on Mercurys, with varying degrees of success. Bob decided that just any tail light that was different from stock would not do. He wanted something that was seldom seen on Mercurys, something with a form of its own that would completely transform the appearance of the car when viewed from the side or the rear, but at the same time something that would be compatible with basic form of the stock Mercury body. We think his final choice of Packard Clipper tail lights and the way in which they were mounted on his car shows the kind of fresh, original thinking applied to restyling a car that it takes to make that car **ROD & CUSTOM Magazine's "Reader's Car of the Month."** ●

ROD AND CUSTOM, DECEMBER, 1954

Good taste in automotive design cannot be purchased, so therefore it is priceless. Aguilera's Mercury has this quality. Absence of mud-flaps, wolf whistles, makes the car.



**Three Generations of
enthusiasts**

They're Neither Too Young Nor Too Old!



photos by Meon



WHENEVER YOU hear of an organization that boasts a wide spread in the ages of its members, it's a safe bet that the group has something to do with rods or customs! No exception to this are the Visalia "Vapor Trailers", a Northern California car club whose oldest member is 51 and their youngest 17! The Vapor Trailers have more than just age differences to distinguish them, however; their club is also unique in that the members' cars are both rods and customs! Here's two of them to prove it! ●

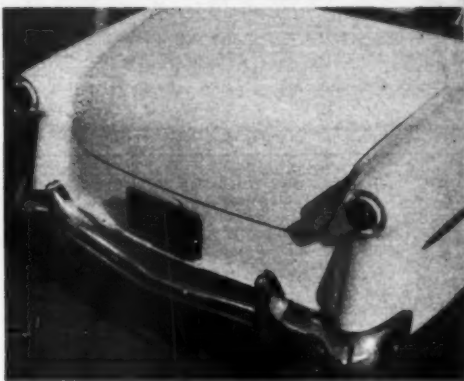


Alden Nunes, secretary of the Visalia Vapor Trailers, owns this '52 Ford Victoria. Body work was done by Visalia's Don Theis. Alden's group has an ambitious project: a clubhouse!

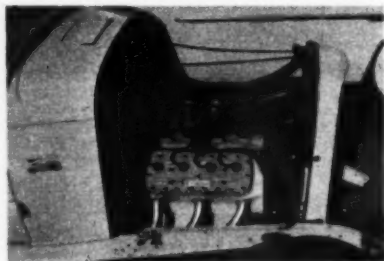
ROD AND CUSTOM, DECEMBER, 1954



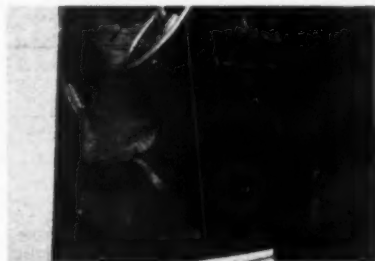
Don Peterson's '32 competition coupe has turned 104 at the drags. Don did most of the work on this car himself. It has been chopped 4", has a louvered hood and a "Diego" style axle.



Other than the filled deck lid, the most unique feature about the rear of the Nunes car is the seldom-seen trick of painting part of the frenched taillight lens to match the car color.



Peterson's powerplant is a 284 cubic inch Mercury. Evans 10 to 1 heads and four-carburetor manifold, exhaust headers, and a Garnett cam comprise the equipment Don runs on this mill.



Interior of the Peterson coupe reveals same stark simplicity found in nearly all competition cars. Incidentally, the type of battery mounting this car employs is not recommended.

Nunes' Victoria is just as plush inside as it is sleek outside. Green and white pleated and rolled Naugahyde interior was done by Frakes, of Visalia. Doors are electrically operated.



**The Pride of Oklahoma City
is this . . .**

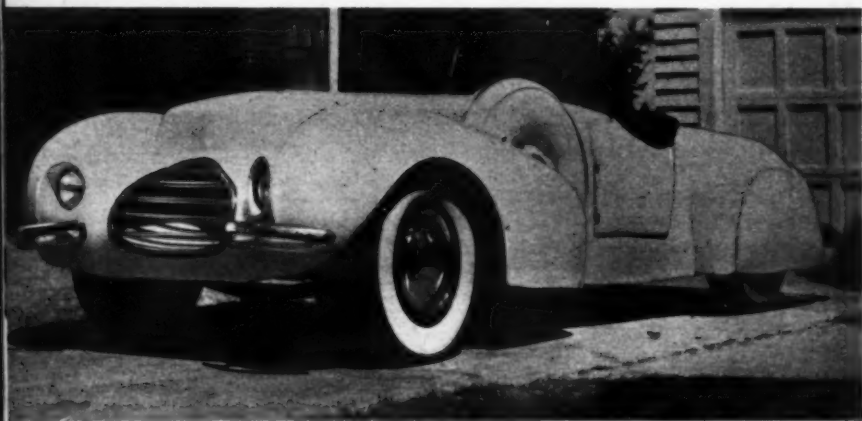
Roadster

by RANDALL

photos by Spence

SOMETIMES we editors find it difficult to define the difference between a "customized" car and a true "custom car". The letters and photos we receive from our readers add to the confusion. Sometimes a car with a leaded hood and deck is referred to by its owner as a "custom car", and on other occasions more modest car-builders have called complete re-style jobs a "customized" car! However, when we saw Jack Randall's car in Oklahoma City we knew we were looking at a genuine "custom" car because we couldn't figure out what kind of car it was originally! Although it doesn't look it, this roadster was a

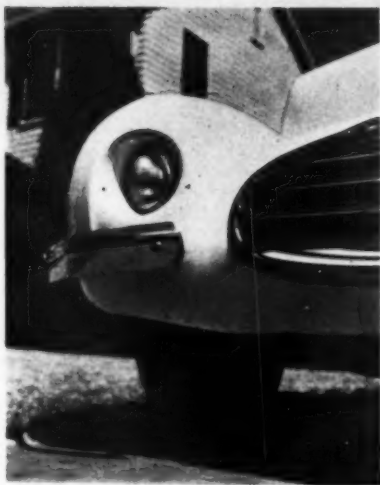
'49 Ford convertible at one time. This radical change in the car's appearance is the result of a complete re-style job done by its owner, Jack Randall, an Oklahoma City speed-shop operator. None of the original body contours are now visible. However, looking beneath the hood gives a slight clue to the car's origin because the modified '49 Ford V8 engine is then apparent. The ported and relieved block has a Luthy full-race cam and a 4" stroke crank. The addition of a set of Fenton 8.5:1 compression heads and a Fenton dual manifold contributed to the output of 122 horsepower at the rear wheels registered by the car



on the Clayton chassis dynamometer at Randall's place of business.

One of the more unique features of this car is its front suspension. It is one of the few cars we know of that uses parts from an *earlier* model in a modified front end! Jack Randall felt that the coil spring set-up of the '49 Ford frame might not be adequate for the type of driving he had in mind, so he substituted the transverse leaf, beam axle type front end as used on the Fords made from 1935 to 1948.

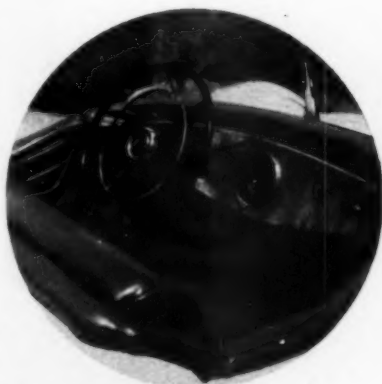
Jack attained that hard-to-come-by "different" look with this car by using body parts from various makes of cars other than Ford. The front fenders, for instance, are '37 LaSalle, while the rear ones are '38 Studebaker (which were used on the front of the Stude!). The rear deck was made from the turret top of a '36 Chevrolet sedan. Lest anyone get the impression that building a true "custom" car is easier than customizing a stock body, we will hasten to add that all of the "other make" components Jack used fit his car only after extensive al-



Unity driving lights were sunk into fenders so deeply that they are invisible from the direct side. Individual bumpers for each of the front fenders were made from '36 Ford.

Ford circular instrument cluster graces stainless steel dashboard, which has been "french knurled", a process which leaves hundreds of tiny circles scribed in the metal of the dash.

Genuine motorboat windshield frame not only holds the glass in place but also provides a convenient handgrip. Small size of glass has proven adequate because it is nearly vertical.



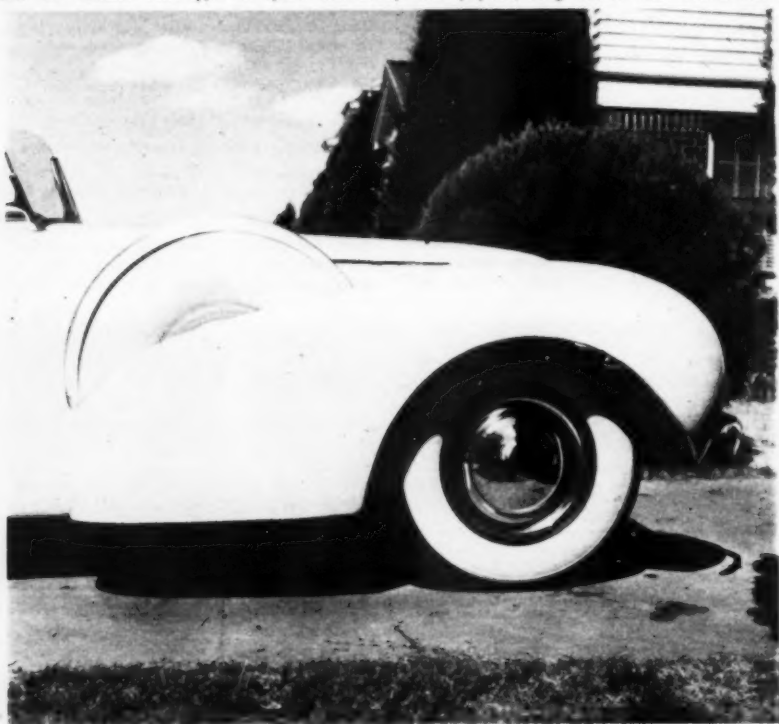
ROD AND CUSTOM, DECEMBER, 1954





Owner-builder Jack Randall is proprietor of Oklahoma City's speed-shop, Randall Accessory Supply. Building of the car took one full year to complete with Randall doing all the labor.

Sidemount spare tires give car's appearance sporty flavor. Fenders, tire covers and all, are '37 LaSalle. This type of spare tire set-up was popular long before the "continental".



terations were made and much hand forming and fitting was done! If you can do this type of work yourself, as Jack Randall did, it isn't too expensive.

Some of the parts used on this car haven't been used by custom car builders for quite some time. For instance, how long has it been since you have seen a sharp car with '36 Ford bumpers? Jack used two of them, both on the front! The rear bumper is one of the few '49 Ford parts still outwardly visible on this car. The face bar has been provided with holes to accommodate the outlets of the Douglas dual header exhaust system. A simple but adequate dash was made up out of stainless-steel sheet. The circular instrument cluster out of the '49 panel was retained and mounted in the center of the new dash. The remainder of the cockpit interior was done in blue Naugahyde which contrasts nicely with the 26-coat "ice-box white" lacquer finish of the car.

Jack Randall is to be congratulated on his successful completion of a difficult job: building a true custom car. ●

The '49 Ford engine has been stroked $\frac{1}{4}$ "', runs Fenton heads and manifold, Luthy full race cam and Mallory ignition. Dual header exhaust system relieves the back pressure.



ROD AND CUSTOM, DECEMBER, 1954



Ford rear bumper and taillights give passer-by just a hint of the car's possible origin. Rear nerfing bars have proven to be just as practical as they are decorative. Note tips.

One and only door is swung wide to reveal the blue Naugahyde interior upholstery. Door was made up from 16 gauge sheet steel stock, as were all the rest of the special body panels.



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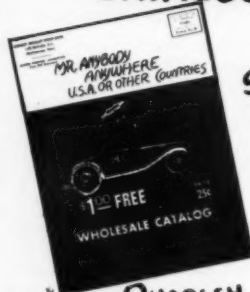
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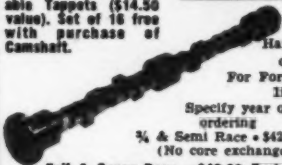


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CUSTOM TIPS

FENDER INTERCHANGEABILITY

I have an Oldsmobile 98 convertible, a 1949 model. I have been told that the '49 Cadillac rear fenders will bolt right on to this car without any leading being required. Is this correct?

Joe Bernardo

Chicago, Ill.

• Yes. This switch can also be done with the '49 Buick Roadmaster, which shares the G.M. "A" body with the Olds 98 and Cadillac.

RAISING BLOCKS?

Is there some way I can get the rear end of my '40 Ford up higher than stock? I want to get that "racey" appearance.

Larry Clinton

Oshkosh, Wis.

• Although we don't recommend it, since this is your department, we'll give you the answer. Just have the spring re-arched to a new contour that will give you the increase in overall height you desire. Any good forge can do this job for you.

CHEVY OVERDRIVE

A friend of mine told me that there is an overdrive unit manufactured for Chevrolets by the Truckstell Co. Do you know where I could get one for my '40 coupe?

Jim Simmons

Aurora, Ill.

• Jumbo Equipment Co. in Los Angeles informed us that up until three months ago they handled this item. However, the Truckstell Co. has discontinued production of this unit. You might check with their representative in your area to see if he might still have one in stock.

Tech. Ed.

'32 GRILLES

I have been buying your magazine since its introduction and have noticed

ROD AND CUSTOM, DECEMBER, 1954

that most of the hot rods you have featured use '32 Ford grille shells. Why? I thought the aim of most rodders was to have a "different" car - not one resembling someone else's.

Bobby Douglas Paramount, Calif.

• The '32 shell and grille have become what might be termed "universally" accepted because most builders feel they just "look right", that's all. The only acceptable deviation from this habit is the construction of a new shell to resemble those used on track cars (Indianapolis and midget type). Other shell and grille assemblies have been tried but for some reason the old Ford parts retain their widespread use.

PENDULUM PEDALS

Where may I obtain a "slave cylinder" for use in an overhead mounting clutch pedal installation? Supply houses I have written don't seem to know what I am talking about.

George T. Hansen, Jr. Salt Lake, Utah

• If you ask for a "hydraulic actuating cylinder" or a "pneumatic actuating cylinder" in future inquiries you will get results. War surplus stores are the best bet when looking for these parts.

(Continued to page 56)

THE NEW CARS

The 1955 cars are on their way! Readers of R & C will want to know all about the hop-up possibilities of the half-dozen radically new engines and the inside story of the new styling! Motor Life and R & C will tell you what you want to know! Take advantage of the Special Combination Offer of a full year of both R & C and Motor Life for just \$4! You'll never regret it!

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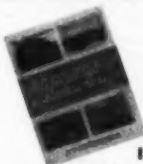
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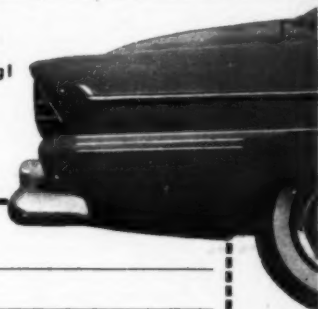
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CUSTOM TIPS

(Continued from Page 55)

"A" FIXING

My cousin and I are cleaning up his '31 A coupe and have run up against a few problems. How can we get rid of all the traditional squeaks and rattles. Secondly, what should we do about the rotted beading between the fenders and the body?

Fred Perry

Johnson City, N. Y.

• The problem of eliminating squeaks and rattles from a 23 year old car is something that plagues all rod builders. Your best bet is to start methodically, at either end of the car, and work toward the other end tightening every nut and bolt. Replacing the door and hood insulation will help, also. If you plan on retaining the mechanical brakes, slip short lengths of small diameter rubber hose over the rods where there is danger of them coming in contact with any metallic object.

New fender beading is available at most service shops or parts houses.

CUSTOM EMBLEM

I saw a car in your magazine that had a feature I would like to add to my own car. It was the word "Custom", spelled out in chrome script. Did the owner have it made up or is it off a stock car?

Dick Ferguson

Owosso, Mich.

• Two American cars have the word custom on their sides, the Nash "Rambler" and certain model DeSotos. The Ford Customline script can also be used by sawing off the last four letters, but will require re-plating to look right.

MOVING UP A YEAR

I want to convert my '35 Ford into a '36. Will the '36 hood, grille, and front fenders fit my car without too much re-work? The rear fenders are beyond repair. What about some other year Ford fenders for the back?

Richard Callahan

North Weymouth, Mass.

ROD AND CUSTOM, DECEMBER, 1954

• No trouble should be encountered with the conversion you desire. How about '38 Ford fenders for the rear? They will fit just as easily as the '36 model.

MAROON PAINT

I own a '53 Studebaker and would like to remove the decorative trim from the body sides, hood and deck. My car is maroon in color and I am told that maroon cannot be feathered without the new paint being noticeable. I like the color of the car and I can't see a complete repaint job for such a small customizing job. But—I'd still like to remove the aforementioned trim.

Larry Herendeen Needham, Mass.

• A good color matcher should be able to duplicate your color—if it has faded or otherwise changed from its original tone—and apply the paint to the entire panels affected by the customizing. In this way, any minor deviation from an exact replica of the stock color would not be noticeable due to door, deck or other body seams breaking up the expanse of metal. This will fool the eye into thinking the adjoining colors are identical.

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TECH TIPS

CHEVROLET ROADHOLDING

I was wondering if you could give me a word of advice. I have a '51 Chevrolet coupe with a 270 GMC engine. I want good cornering. Would it be worth the time, trouble and money to install "Olds" springs all the way around. I'm not as interested in the ride as I am in staying on the road. Would it be advisable to put maybe 200 lbs. of lead in the frame?

Jim Bell

Seward, Alaska

• Read Barney Navarro's article "What is Suspension?" in the October '54 R & C.

Tech. Ed.

FORDMOBILE

Could you give me any information on the installation of a '50 Olds 88 engine in my '41 Ford. I believe there is an adaptor plate available for this conversion. If so, where may I purchase one?

Dan Kulp

Long Beach, Calif.

• Bell Auto Parts, 3633 E. Gage Ave., Bell, California, stock the item you need.

Tech Ed.

FOUR BARREL

I have a '31 Model "A" coupe with the original engine in it. I have made up a new intake manifold to take a Stromberg "48" carburetor. What size jets should I use? The engine has 7.5:1 compression, and dual exhaust headers. What should the approximate horsepower output be?

• Try .045 main jets with a .065 acceleration pump valve. The approximate output of your engine should be around 60 H.P.

Tech. Ed.

FRAME QUERY

I am building up a '30 "A" roadster. I wish to put a '32 frame under the body. Do I have to alter the frame? How can I step this frame? Where

ROD AND CUSTOM, DECEMBER, 1954

should I put the motor mounts?
Leon Anderson Seattle, Wash.

• The '30 and '31 "A" roadster bodies go onto the '32 frame with a minimum of work. Cutting out the trunk compartment floor will be required. To step this frame, use a Model "A" rear cross-member and spring, with "A" spring perches on the rear end. Since you didn't specify what kind of engine you are going to use, I can't tell you where to put the mounts. Tech. Ed.

REMOTE CONTROL

I would like to see more technical articles in your magazine, especially one on the linkage needed to operate the clutch and transmission of a rear-engine car. Also I would like to know formula for computing an engine's cubic inch displacement.

Bob Inch Sacramento, Calif.

• See our March '54 issue article "Pendulum Pedals". By using hydraulic cylinders at both ends of the system, the method outlined could be readily adapted to a rear-engine installation. The formula for computing cubic inch displacement is as follows: V equals $(.7854) (B \text{ squared}) (S) (\text{cyls.})$ V equals Volume, B equals bore size, S equals stroke length, and cyls. equals number of cylinders. Tech. Ed.

LEAF-SPRING CONVERSION

I have a '40 Buick, and would like to know if there is any way I could replace the stock coil-spring rear suspension with leaf springs.

Hal Wressell Price, Utah

• The leaf springs from a pre-war Oldsmobile, and their shackle hangars, shackles, U-bolts, and the plate that fits between the rear end housing and the spring will be necessary to make the conversion you describe. Welding will be required to mount the spring hangars to the frame and the spring support plate to the rear-end housing. This setup will give you stock spring tension.

Tech. Ed.

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Jim Weyer

Toledo, Ohio

PARAMOUNT PATIENCE

Here is my contribution to "Reader's Customs". The front end was hand formed and the grille was made up from chrome tubing and Nash spinners. The engine has an Edelbrock manifold, exhaust headers, and a Harman-Collins ignition. Due to lack of funds the rest of the engine is stock, but I'm patiently saving to build a hot street engine.

Ted Long

Paramount, California



SHE LIKES IT

I thought you might like to see what my husband did to our '50 Ford sedan. He did all the work himself. I can't tell you what he did because I don't know that much about customizing.

Mrs. George Maxwell Pasadena, Calif.



FORDMOBILE

My '49 Ford is powered by a '51 Olds V8 with a Stromberg carburetor, Malory coil and the '52 Olds high-lift rocker arms. A '51 hood and top grille bar with a '53 Chevrolet grille change the appearance of the front end.

Bill Reckmeyer

Arlington, Neb.



ROD AND CUSTOM, DECEMBER, 1954



POCATELLO PLYMOUTH

My '34 Plymouth coupe is painted royal maroon. The upholstery is in ox-blood and white Naugahyde. As far as the mill is concerned, I'm still using the original engine, as I have been doing

the past four years. I've been trying to find a Dodge "Red Ram" V8 for the car, but at the present time they are still scarce around here.

Paul Ellis

Pocatello, Idaho

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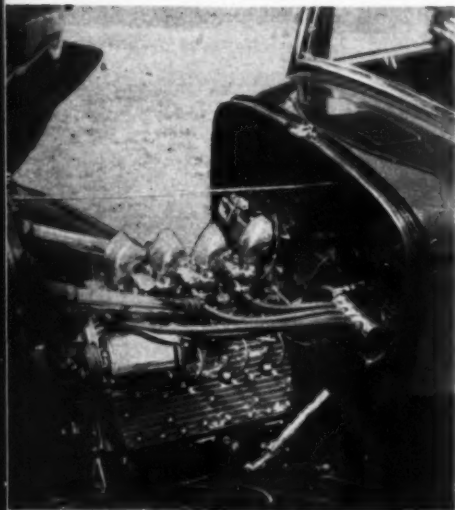
CAR SHOW

(Continued from Page 32)



Barris-ized Chevrolet took honors at Narbonne show. Convertibles are always judged separately from the hardtops. Stylists claim these two types have entirely different design problems.

Car show judging stresses the neatness of the engine compartment. When a car is competing in a class for "hot" cars, as this was, a really good looking engine is a worth-while asset.



could be established as being the maximum obtainable in each of these categories. This would make it easier to judge because the excellence of the car in any category could be expressed in a percentage, for example, "the quality of the body and paint of this car has been rated as being 90%". That car would be awarded 90 points on that part of the judge's ballot.

The main thing to remember is that if two cars are almost equal in quality of work done, then the quantity must be the deciding factor, and vice versa.

The quality of the judging, of course, will be dependent on the knowledge and experience of the judges. It shouldn't be difficult to obtain the services of qualified personnel because being selected to judge the cars at your show will be a testimonial to the fact that the person concerned is an expert in his field.

Many clubs have staged shows that went beautifully until the spectators started asking questions. In order that the judges and contestants won't be bothered by this natural human trait, an information dispensing center should be set up. It doesn't have to be a fancy pagoda or even a booth; a roped-off area enclosing the P.A. system is sufficient, plus a tireless club member to answer questions about the cars, what class is currently being judged, etc. Incidentally, although the spectators should be kept informed of what is being judged and where, the results should be held until all judging is completed, instead of releasing that information one class at a time. The trophy awards should be made all at once, making full use of the P.A. system. Doing so makes it practical to have the trophies on display, throughout the show's duration, at the information booth-P.A. system location, making it the headquarters of the show.

We've covered the who, what, why, where, and how, of club-sponsored car shows, leaving out one thing. When?

That's up to you! ●

ROD AND CUSTOM, DECEMBER, 1954

BONNEVILLE

(Continued from Page 19)

black Hudson coupe was powered by a blown Chrysler V8 and the fastest single engine coupe had almost reached the 200 mark with a Dodge Red Ram. Chrysler-built engines were dominating the field. The Ford flatheads were gasping their last — an era was ending.

The Wendover wrecking yard did a land office business as old junkers went under the torch for necessary parts. One chopped '32 Ford coupe boasted the turret section of a '37 Chevy as the owner changed his car's classification from Modified to Stock Body.

Then the rains came! Early Thursday evening the sky darkened and a light sprinkling began. A little water, however, cannot dampen the spirits of true enthusiasts and work continued, regardless. Friday morning found just as many, if not more, cars on the line as before and the runs continued even as another storm approached the salt beds. Not until after torrents of rain began

(Continued to Page 66)

STAFF NOTES AND COMMENTS

Bonneville this year was a case of history repeating itself. Once before in the saga of hot rod racing has the same story been spelled. It was at the El Mirage Dry Lake meets held immediately after the war. Then too, did one type of engine pass out of the speed picture to be replaced by another, and more efficient type of power-plant. It was the demise of the flathead four-barrel at that time, but the 1954 Bonneville meet saw the passing of the flathead V8. The similarity of the two instances cannot be denied. Just as the V8 replaced the four-holer, the Detroit-bred OHV 8's have rendered the flathead V8's obsolete. This year's Bonneville speed trials put the hot rodder's stamp of approval on the new engines. But one cannot help but feel a twinge of nostalgia at the passing of the old trend and true bent eight.

The King is dead, Long Live the KING!

THE 1954 BONNEVILLE RECORDS

Class & Car	Entry	New Record	Engine	Old Record
C Streamliner	Shadoff Special	248.26	Chry.	224.14
C Lakester	Neumayer - Reed	205.71	Ardun-Merc	197.88
E Mod. Roadster	Raymond Special	202.07	2 Chry.	154.51
E Lakester	Hales - Moll	183.63	2 Merc.
B Comp. Coupe	Chrisman Bros. & Duncan	180.87	Dodge	160.18
C Comp. Coupe	Chrisman Bros. & Duncan	180.08	DeSoto	172.75
D Roadster	Voit - Colb	172.17	Chry.	166.57
D Comp. Coupe	Don Bishop	171.57	Chry.	160.85
C Coupe	Quinton, Joehneck, Latham	154.34	DeSoto	145.16
E Coupe	Bruce - Crower	151.91	Chry.	145.23
B Roadster	Williams Bros.	150.90	Dodge	146.37
D Coupe	Glenn Overmyer	141.43	Cad.	138.57
B Coupe	Taras - Arias	138.41	Chevy	133.26
H Streamliner	Cooper, Ltd.	110.75	Norton

SPORTS CARS

Class & Car	Entry	Engine	New Record
Under 1500 cc closed	David Paramore	Porsche	110.66
Over 1500 cc closed	Joe Simpson	Jaguar	127.20
Under 1500 cc open	Jack Cardwell	Porsche	95.04
Over 1500 cc open	Joe Mabee	Mabee Spl. (Chry.)	187.66

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CORRESPONDENCE

(Continued from page 9)

D. P.

Arkansas is getting a number of rods and a large amount of conservative customs, especially in the Greater Little Rock area. By conservative I mean lowering jobs, custom grilles, filling in, etc.

We have our share of "squirrels" too. Most of them seem to go for a loud muffler (*singular*) with maybe a fake pipe. Also the usual array of chrome stars, rockets, "dying swans" (that's what I call them), and *especially* fender skirts of an entirely different color.

I am just a displaced Californian; I graduated from Alhambra High last summer. I'm working here now, but hope to get back out there on vacation next year.

Powell Andrews No. Little Rock, Ark.

• You sound like a "foreign correspondent", Powell. We think that you might be just a little homesick for the sights and sounds of the Pomona Drags!

SHOPS VS. HOME

A friend and I have argued over whether a car should be customized at home or at a professional shop where the body men obviously know what they are doing. How do experienced custom men get started in the trade?—they have to start somewhere.

A reader.

Blissfield, Mich.

• Amateurs who have carefully read articles on customizing and who have spent some time at a body shop observing the use of tools and materials have turned out some very fine, long-lasting custom work. However, few custom men are self-taught. Most begin by working at the regular de-denting trade—a skill in itself—then gradually progress into the custom field.

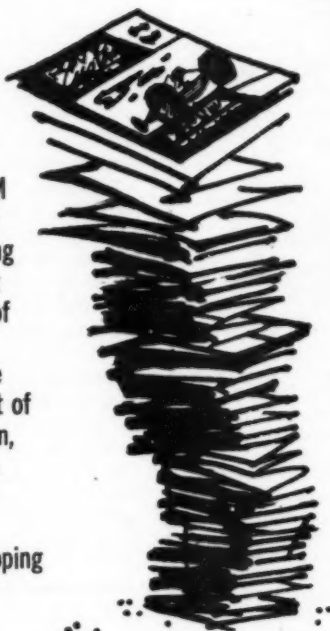
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WORLD CHAMPION ECONOMY STORE

BONNEVILLE
 (Continued from page 63)

falling at the starting line were the runs called off for the day and tired, wet pit crews retired to town to make ready for a final assault the following day — if the rain stopped.

Saturday morning the vast lake bed looked as though it had risen overnight to one of its prehistoric levels. Cars mashing their way to the pit area, some two miles from the road, took on the appearance of speedboats and a few wits passed the story that hydroplane races would begin soon.

Undaunted, though, runs continued and records in class after class fell as the end of the meet approached with alarming swiftness.

Relatively few cars actually completed their record runs Sunday morning since qualification runs the day before had been cut short because of the inclement weather. At twelve o'clock noon the meet was officially ended and the many tired, but happy, enthusiasts hit the road for home.

Despite the hampering of SCTA officials by outside interests which gave spectators the idea of poor overall organization, the meet was termed a success and the die-hards are already talking of next year's meet. Farewell, Bonneville — until next time! ●

SEPTEMBER What'sIt ANSWER

The September "What'sIt?" was apparently quite difficult to identify to the majority of our readers, but it made it easy for the editors! This month we didn't even have to blindfold ourselves and reach into the box of correct answers to pull out five of them at random, as we usually do. There weren't that many correct answers! Exactly five people identified the engine as being an eight cylinder Maserati, so each of them will receive a one year subscription to R & C, as per our usual policy of five awards. They were: George T. Albert, Seattle, Wash., Albert Prince, Manitoba, Canada, Leonard Chase, Graton, Conn., Pete Giovanni, Chicago, Ill., Will Redson, L.A., California.

Congratulations are in order for the five winners, because it wasn't easy!

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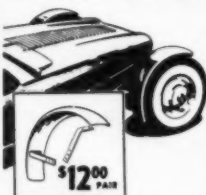
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